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"Scire est nescire, nisi id me
Scire alius sciret."

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PROBLEMS IN PSYCHOLOGY.

BY

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THE reason of my being called to occupy this chair to-night has, I am quite sure, been due to an intention on your part that all branches of our learned profession should not be wanting in representation through the person of the President for the year. And so the revolving years have once more brought forward in its turn psychological medicine, which I most unworthily represent, and I may say I feel very deeply the honour you have so graciously conferred on me in nominating me to the presidency of your Society.

It would almost be impossible for me, if not undesirable,

to lay before you any thoughts on a particular element of psychology or some abstruse questions connected with it, the time at my disposal being so limited; but rather, following the example of some of my predecessors, I shall venture to touch lightly upon some few matters which daily experience show me to be real difficulties with my professional brethren, and which prominently assert themselves constantly in a very practical manner, so as to try and see what are the causes of these difficulties, real or ideal.

I am always being assured by the relatives of patients about whom I may be consulted, and very often also by the medical adviser of the family, that the patient is not insane, and cannot on any grounds be considered to be in such a condition; it may be admitted that he is a little peculiar or eccentric, not more than that, but certainly not insane. Not only to one, who controls a private licensed house and is liable perhaps to be biased, but to those other members of this speciality in charge of licensed hospitals or of asylums maintained for the poor and needy by the counties and boroughs, these patients exhibit almost at a glance in numerous cases the common symptoms of insanity, and a smile tends to creep over our face while we listen to the persistent endeavours of the relatives and friends, and, as I have said, often of the medical adviser, to impress upon one that the case is anything else one likes to call it but insane, as well as at the latter's positive assertion that to sign a certificate would be impossible, as well as morally wrong.

One hears that a gentleman has exhibited for some weeks, or even months, symptoms of low-spiritedness, has apparently lost all affection for his wife and children, makes frequent hints at impending ruin, and one day not long after is found in the office parlour of the firm in which he is managing director and a highly-valued servant, with a loaded revolver in his hand by him on a table at which he is sitting in gloomy despair, saying he has lost everything and must shoot himself. The medical practitioner and the learned consultant called in, and who see him in this condition, agree that he is not insane and that they cannot sign certificates to place him in a place of common safety!

Again, the mother of a lady who is married consults me about her. She informs me that her daughter has gone through a very great deal of trouble caused by the very questionable proceedings of her husband; that this gentleman in an underhanded and incomprehensible way had placed her in an asylum where she was for some two years, and from which the relatives could not get him to remove her. At last, however, the mother on her own motion in some way I did not comprehend, but apparently not with the advice of the physician to the hospital, removed her from the asylum and took her to live with her. She found her perfectly well and quite sane. Still she tells me she has been in a more or less hilarious condition of excitement, not occupying herself at all except a little with music. She is quite controllable by her mother, but she cannot be allowed money, as she gives it all away on unworthy objects or spends it quite foolishly. She will when out walking take off her boots and give them away, as well as articles of her dress also, and return almost bare, she is so good-hearted, charitable and kind. She thought it best to send her into a medical man's house for a time, but being practically without control there she goes out continually to concerts, and listens to bands, and gets excited, and the mother does not think this good for her or that she is so well, and that probably she would be better for supervision in an asylum. She considers there is a very great difficulty in the way so far, as she must impress on me the daughter is in no way insane, only a little eccentric, and that medical men who have seen her declare that on this account she is not certifiable, and ought not to be placed in an asylum.

I forbear to quote more cases, but they are plentiful. These two will suffice to show that we who are trained to this peculiar work see at once that both these cases are unquestionably insane, and indeed that in both these cases there is material enough to found several certificates upon. If this is really the case, how is it that other observers cannot see they are insane as we do? I think little blame can attach to these persons. The features of the disease no doubt are difficult to master, especially if a person has had no asylum experience. Still, let

us look a little closely into the matter and see if there are other reasons, and some not so excusable. We who are coming in contact with these cases daily can see the insanity clearly and definitely stamped on the patient, in most instances in demeanour, appearance and action, as well as in speech. As Dr. Maudsley has well said, an insane patient utters himself not only by his speech but by his actions. It is very much the same thing as the skilled observer with the microscope, who can with a glance sum up the appearance he sees in the section beneath the lens, whereas the unpractised person will have to puzzle over it for some time to clearly make out its character, and the learner will only see a tangled mass of structure he cannot comprehend, and may take for something it is not, until it is carefully explained to him. There are influences of different kinds which may unwittingly affect and pervert the judgment—no doubt there is a strong feeling that it is prejudicial to the family and to the patient that such "a stigma," as I am sorry to say one still hears it called, as certification should be laid upon the patient, and it is tried, quite conscientiously I am sure, to avoid admitting the patient's lunacy. Some also, I think, are not able to see that what they are willing to look upon as eccentricities—not the true eccentricities of personal fads, manners, or of speech, and tricks of gesture, but the eccentricities which are the remnants of an attack, or the eccentricities which may proceed rapidly to develop into forms of serious mental disease—are a form of disease at all.

Then again there is still amongst us the bugbear as to the responsibility of signing a certificate. I do not mean that proper responsibility which all of us ought to, and I am sure do, feel when we have to perform any special act of our profession, where often indeed the responsibility is far heavier and more serious than in signing a certificate of insanity. I mean the feeling that it is such a risky thing to do, and therefore should be avoided on every ground if possible. Nor am I altogether out of sympathy with this feeling when I remember how in days not long past members of our profession have suffered so unfairly for such an act, even here in Clifton. Still, so far as that goes, the signing of a certificate can often be avoided, we

should remember, nowadays, by placing the patient in the voluntary boarder class, and so obtaining fitting treatment.

I think it will be admitted that any grave deviation from the normal in an organ of the body, even though temporary, is disease; so also must it be with the brain. We must also admit that any palpable deviation from its normal condition as exhibited by the emotions, the intellect, and the will, is insanity, though the state exhibited may not imply the necessity of treatment under restraint. It must surely be admitted by an unbiased person that when inflammatory changes in the brain are taking place, producing such results as I have typified, and leading, as is always the case, to more or less disturbance of the functions of sleep, respiration, digestion, and changes in other organs, it becomes a very serious question as to what action a medical man should take, and whether he is not bound in such a case to give every aid in the way of specially skilled nursing, treatment and appliances, such as those well versed in the treatment of the disease do not hesitate to say can only be found in a fully-equipped asylum. Has it not struck you at all as a terribly sad thing—to me it is one of the most awful and sickening horrors of the newspapers—to see carefully recorded day by day the tale of suicides, homicides, and murders, in most of which we find recorded that depression or similar symptoms had lately been observed; a very large number of which unquestionably were avoidable had medical men only acted with the truest kindness in getting these poor creatures placed under asylum treatment previously. I know well the many difficulties there often are in the way, but my experience leads me to feel that so much more might be done. I also know that if a medical man is only firm in his expression of his opinion as to the danger involved in all such cases of depression, that opinion is rarely put on one side and not acted on, except perhaps in the case of members of the upper classes of society, who often think they know better than their medical adviser. In such cases one pities the folly of their conceit.

Sometimes it is felt that the patient is unquestionably insane, but the evidence upon which to found a certificate seems hazy

and insufficient. When the certificate is written it will then probably be found that sufficient "facts" have been stated to form the foundation of several certificates. It is not sufficiently understood, I think, how very little is really needed to form a good and valid certificate. The bare statement that the patient is evidently greatly depressed, religiously or otherwise, and has attempted or is actually contemplating suicide, is as strong a certificate as a man can write, and far stronger than many certificates in which all four lines and the margins of the document beside are filled up with an involved statement of "facts."

But there is another cause to which I have referred which often prevents certification. It is the fear of the law courts. This fear, however, I hope and trust is a thing of the past and has no basis nowadays. No doubt it takes a long time to eradicate such a dread, a dread which before 1890 was one which indeed had grown to be a matter of a very serious nature. Since the passing of the Consolidated Lunacy Act, called that of 1890, that dread has been set at rest, and medical men can so far do their duty fearlessly. From observations made to me from time to time, I am very sorry to say that medical men do not seem to find time to keep up their acquaintance with that part of medical jurisprudence which treats of the Lunacy Act. Probably very few medical men own a copy of the Act or think of looking at it in *The Medical Directory;* nor, I fear, do they even look at the printed advice and regulations which the Act now attaches to the present form of certificates. Anyhow, the Act has provided a simple but sufficient, and I am almost inclined to say perfect, safeguard. Since the Act came into force the attempts to prosecute may be counted on the fingers of one hand, and each case has hopelessly broken down. So much is this the case, that I understand no lawyer nowadays would dream of bringing an action against a medical man for signing a certificate.

The reason for this and the protection so amply afforded by the Act my experience shows me is but imperfectly understood. In the first place there is the declaration by the Act as to bona fides on the part of the medical man signing—barring prosecu-

tion. In the next place I wish to call to your minds that when the petition and statement are prepared, and the two medical men have properly filled in and signed their documents, these are all taken to a magistrate duly appointed under the Act for the purpose. He sees these documents and examines them. If he likes he can see the medical men, and he can see the patient or not, as he pleases, before he signs the "order" for admittance into an asylum. Some justices have an objection to seeing the patient, and some, on the contrary, make a point of always seeing the patient. In some very exceptional cases it may be desirable, no doubt, that the patient should not be visited and perhaps dangerously excited by the visit of the magistrate. However, in my opinion the medical attendant or medical man signing certificates should make a point of getting the magistrate to see the patient, for it is in his seeing the patient that the great safeguard lies, although the magistrate's act is simply judicial. If a magistrate appointed for the purpose examines the two certificates, sees the patient, finds the patient's symptoms tally with the medical men's statements, and then signs the order, it renders it next to impossible with that backing for any one to urge that the two medical men acted without proper care and bona fides, and no action could lie.

The medical man and the friends of a patient may have an idea that residence in an asylum is a thing so dreadful that it must be avoided at all costs, even to the length of breaking an Act of Parliament, as has been urged, and the lunatic is sent to the care of totally irresponsible and unauthorised persons in numerous cases. A great deal of late has been heard of "borderland insanity" in order to get over the difficulty. What are borderland patients? As I understand, they are patients whom one must not call insane. But if so, where are we to draw the line between sane and insane? They are neither fish, flesh, fowl, or good red herring. They are not cases, it is said, fitted for asylum treatment, and asylum treatment is entirely deleterious and positively harmful to them, and will excite or depress them until they actually become insane. If there is the least truth in such a theory, it is a very terrible matter

indeed, because then surely the truly insane also cannot benefit, as we can show they have done for years past, by asylum treatment. These patients must react for ill on each other, and the sooner every asylum in the kingdom is pulled down the better. Remembering the kindly-hearted and humane men who have managed these houses for years past, and done so much in every way for the improved treatment of the insane—such men as Dr. Conolly, of Hanwell, and the first Dr. Fox, at Brislington—such men would surely have tried to pull down the one and close the other if there had been any truth in the statement. It is a well-known fact that no lunatic has ever been known to have been the worse by contact with others. Again, when does a borderland case cease to be one and cross the border? I know indeed full well that insanity is developing in numerous cases before ever it is possible to raise a question of legally sane or insane, and long before the friends are the least aware of it or the medical man consulted. This incipient insanity I understand just as I do the incipient stages of other diseases. Is that a borderland case when a man recovering from a fever shows symptoms of depression only for a few hours, with no evident delusion, and yet is dead in a few days with his throat cut? Does it mean the elegant young lady, morally weak and ill developed, who gets away from her friends on an opportunity, roams about London and plays Messalina for a week? The phrase has been applied to these cases, and it is urged that the right treatment is that they should be supervised in a special department of an ordinary hospital—this necessarily as a free agent, for if confined or restrained the question of the liberty of the subject will arise; or in charge of some benevolent gentleman and his wife with small means, not at all necessarily having medical knowledge or a house adapted for such treatment, to see if the case develops into insanity. Can there be a borderland condition to a patient inoculated with the germs of scarlet fever or small-pox? Can a case with harmless delusions be on the borderland of insanity? Does it only become a case of certifiable insanity when the patient's delusions lead to their giving away their valuables to unworthy recipients or to others than their immediate relatives? There are also persons whose brains

have never been quite fully developed, but who perhaps get on fairly well up to the age of puberty, when they break down. They are often sources of annoyance and vexation on many grounds to their relatives in the way of their talk, behaviour and general conduct. However treated, little good comes of it, but rather outbreaks of viciousness from time to time. Are such to rank as borderland cases? Some say so. It is very difficult to express in words what one feels with regard to this borderland theory, and one needs to place restraint on one's self to refrain from saying what one feels is the basis of the whole thing. To say the least of it, in numerous cases, we will hope unwittingly, it is nothing less than a cruel deception; and so the patient who has passed even the incipient stage of an attack, and who needs at once everything that experience has shown is necessary to cut it short and lead it into paths of recovery, is practically deprived of this chance by being placed in a position where there may be no medical supervision, in a house carefully secluded from observation of others, and where there is a want probably of all proper attendance and staff. I am unwilling to trouble you with examples, no doubt some occur to you, and the following will suffice. A young lad was considered to be suffering from borderland insanity. To the trained observer he was really an imbecile. The lad's mother and family were glad to have such a soothing definition of his malady given them, as well as at being told an asylum would be the worst place possible in which to place him. They placed him with a man and his wife, persons of small means, with no medical knowledge or even skill in nursing, in an out-of-the-way house in the north of London, where they were led to suppose he would soon be well. He was there some years. When visited he was often found left locked into the house alone, with no one near, there being no house within half a mile. No doubt severe remarks were made at this condition of things by the parents, still on one occasion he set fire to himself and got burnt, and on another he fell down off a table on to which he had got to look out of the window and broke his leg, and I found him in a garret for his bedroom, given him, it was said, because it was so airy and he could see all round the country-side from the window. He was removed to

asylum treatment, but too late: he had drifted into a state with little hope of amelioration. Had this treatment been given at first much might have been done to improve his condition.

There appears to be a happy tendency in the present day amongst all classes of society in serious forms of disease to enter a hospital for treatment and nursing, and with the rich the private hospital and nursing home are most acceptable. And why is this? I suppose it is because it is becoming generally understood and accepted on all sides that even in the dwellings of the rich, with all that money can provide, an ordinary house is not equipped in a way that is suitable to the treatment of such cases. The hired nurses, however good, are often not the same as when under hospital control and direction, and a skilful authority is at hand in the smallest emergency. Many of the conditions of a private house are most undesirable at such a time, and there is a great want of that battery of drugs and appliances always at hand in a properly constituted hospital, however small. If we look at matters in this way in ordinary medicine and surgery, and even create hospitals for treating special forms of disease, why is the poor lunatic to be the only one who is to be deprived of all the aids which years of devotion to the work, of thought and consideration, have built up into the special hospital for his form of disease; where the physicians have been laboriously drilled and specially qualified for their anxious work by a very trying and abstruse training; where the nurses are also specially trained into habits of unremitting patience and endurance amounting to an exhibition of a virtue, and where everything is adapted to security from harm, as well as from restraint; and where the only and one object is the effecting a cure, and the whole tone of the house is such as will bring to bear upon the patient, probably quite imperceptibly to himself, every circumstance most effective to that end? When a man unluckily develops a tænia and gets a cysticercus in his brain, producing unpleasant symptoms and paralysis, everyone will agree that the best thing for him to do is to go to a hospital, public or private, and he will be pressed so to do. When the cysticercus in his brain produces symptoms of mania then the endeavour of everyone is to prevent his being treated in the

place most appropriate for his case. Treat him as a borderland case—yes, certainly, and send him to Mr. So-and-So, who receives "cases" into his private house. Surely the true treatment should be to send him to a hospital also, but it should be a lunatic hospital, public or private. A broken leg as a matter of course is taken to a hospital, and to be logical surely a broken brain requires a similar and appropriate treatment. Cases sickening for fevers or other serious complaints are very sick people, and require anxious and trained nursing; but I know no such anxiously sick people as those who are showing early symptoms of mental attack, or who more certainly require every aid applied as soon as possible to the relief of the morbid brain condition; and no better aid can be obtained than the special hospital treatment of an asylum, with all its circumstances of curative rest and calm, and its expert and systematic treatment. No class of cases require the attention of the trained nurse more than the subjects of incipient and recent insanity. The constant observation by such trained persons is invaluable amongst the insane, many of whom it must be remembered can give no indication of symptoms of disease of the general system, and where clinical phenomena so often require to be interpreted much in the same way as those of a sick child or even of a sick animal.

Such a happy condition of treatment those who look at the matter from my standpoint do not think it is possible for them to obtain as single patients dotted all over the country at random, whether as single patients under the Act or kept unquestionably in numerous cases surreptitiously in evasion of the Act. It is not that in many such cases their bodily comfort is not well looked after, for in some cases it is luxuriously so, and they receive every good and kind attention. The family are probably considerate and good-natured to them, and give them a good deal of companionship. The ordinary and general occupations and amusements of the family the patient shares in as far as possible, and if not so far capable, often—indeed, far too often—is allowed to drift into his own methods. Now no one can say this is treatment, much less treatment of a kind likely to prevent so-called borderland cases drifting into that

which this treatment is supposed specially to avoid, a true attack of insanity. But such very sick, impotent folk cannot be treated with justice thus. They need in their way the full appliances of an institution, and the freedom from irritation of relatives and friends, just as much as a case of stone in the bladder or small-pox. Why then are not the insane to be treated in their own hospital?

At present, and I fear for some time to come, the treatment of insanity remains under the direction and rule of an Act of Parliament. The sins of the fathers are being visited on the children to the third and fourth generation. For had not our public institutions in the earliest years of the past century been such sinks of abomination and mismanagement such as the Royal Commission of that period showed them to be—and let it be remembered the private licensed houses were not included in this condemnation—I suppose we should never have had the many Lunacy Acts that were passed. It has always appeared to me to be a very stupid and clumsy arrangement that certificates of insanity should have to be signed and used at all. I cannot see why any person suffering from incipient and fully-developed insanity cannot be taken into a hospital for treatment just as easily as the man who has fallen from a ladder in the street and fractured his skull. He no doubt might if he were able, or liked, to protest against such treatment, yet willy-nilly he is taken. There is only, of course, one requirement that should be obligatory, and that is that the hospital must be one fully equipped for the treatment of such cases. Nor do I think that the huge palaces—for such they are, palaces such as few very rich men even could build, holding one to two thousand insane persons, largely incurable—are desirable places for treatment of the curable insane.

The time will come, I hope and trust, when we may see each town of a fair size having an ample and large plot of park-like ground of many acres, well wooded, with lovely views, and laid out so as to extend and amplify its beauties, whilst here and there parterres of flowery plots and choice foliaged plants may add to its attraction. There would be many tame animals about and birds in spacious aviaries. There would be a central

institution, roomy and decorated quietly, but still with ample luxury and decorative art. In this house would be protected, taken care of, and treated, the suicidal, homicidal, and acutely excited cases. It would not be very large in its dimensions, but possess an ample staff of efficient nurses. There would also be small cottages, villas, and larger dwelling-places fully adapted to their purpose in different parts of this park for the quiet and harmless cases. Work and employment of all kinds suited to the patients' needs could be provided for such as were entering on the earlier phases of amendment and recovery, and who now could begin to make use of them. No greater mistake has been made than to suppose the insane can employ themselves before then. When a patient begins to occupy himself in some way then you may be sure he is entering on the stages of amendment, if not of cure. The so-styled amusements provided would all be of the soothing and quiet kind, not frequent or exciting, which is too often the case with music and dancing. In my opinion also a great mistake is made in this matter. It is an error to place an excited crowd in conditions of excitement. The imbeciles and epileptics would be in separate parts of this domain and grouped in separate houses. Hysteria, chorea, intricate cases of nervous disease, &c., could well be treated here also by their own medical attendant. One point there is that must be provided for under such circumstances. In compelling a patient to take food necessary to preserve his life, to dress and wash, and when indecent and violent behaviour of any kind leads to make restraint or seclusion necessary, and when the tendency to suicide and homicide requires the constant presence of a restraining nurse, and in such cases as have to be dealt with by forcible means and interference with their personal wishes, we arrive at that very ugly condition of which so much is made by an excited British public—that considers itself fully qualified to sit and judge upon any subject, however learned or intricate—"interference with the liberty of the subject," the common view being that such a thing cannot be allowed on any account, though the British matron is quite ready to shut up her children even of grown-up age in their rooms without food for some hours as

punishment as well as to beat them black and blue, and the master to cane a youth at school. Yet when it becomes a question of whether a man is to cut your throat or blow his own brains out, then if means are taken to prevent him one is liable to an action at law and *habeas corpus* and all that kind of thing if it is done before a certificate of insanity is signed.

How then could such cases be dealt with in such circumstances. Every patient that arrived at the establishment would be seen at once by the physicians attached, and any cases found to be in these conditions would be detained until they had been seen by a justice of the peace, who would sign an order for their treatment in that part of the place which I mentioned as being built and adapted especially for such cases, and similar action would be taken with any case falling into such a condition whilst under treatment in the other parts. This would do away with certificates and all the vexing and trying methods now in use, and make prompt treatment as easy for insanity as for any other disease. In the general hospital the patients are under a certain rule as to going out of the hospital, receiving friends, &c., and so would insane patients be. None would be dealt with by the magistrate, and the central hospital, except those whose condition renders it impossible to treat them otherwise with due care for their safety, and in this way the liberty of the subject would be fully conserved and guarded.

From the days of Sir Thomas More until now we have all liked to write up our Utopias. Some Utopias have, however, come into existence, and the Utopia I have sketched will, I think, probably come into being in the not so far distant future.

THE LONG FOX LECTURE:

THE FIRST ANNUAL LECTURE ARRANGED BY THE COMMITTEE OF THE LONG FOX MEMORIAL, DELIVERED IN THE MEDICAL LIBRARY, UNIVERSITY COLLEGE, BRISTOL, ON NOVEMBER 4TH, 1904.

THE RIGHT HON. LEWIS FRY *in the Chair.*

BY

JOHN BEDDOE, M.D., LL.D., F.R.S.,

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WHEN made aware that I was to have the honour of delivering the first Long Fox Lecture, I naturally gave some thought to the selection of a suitable subject.

There are sundry lectureships having more or less analogy with this one. Some of these have been founded at least as much with the view of commemorating the founders themselves, of rescuing their names from the common lot of oblivion, as for any object of general utility. And well may we sympathise with such a desire! It is hard for most of us to reconcile ourselves to that common lot; it is hard to say with resignation—

> "Thus shall it chance to me:
> In ages yet to be
> There shall remain no trace on land or sea,
> Nor in the memory of any friend;
> But they and it shall surely have an end."

But more germane to this foundation of ours are the Harveian Lecture of the College of Physicians and the Huxley Lecture of the Anthropological Institute. How differently are these two handled! The Harveian Lecture has become a kind of *tour de force*. The orator feels bound to lay yet another wreath on the shrine of Harvey, already almost hidden from view by previous contributions, and to display his ingenuity in straining facts to fit in with the notion that that undoubtedly great man was, what he was not, another Aristotle or a greater

Crichton. On the other hand, the last Huxley Lecture to which I listened, delivered by an eminent man, and containing much that was new and important, included no mention that I heard of the illustrious name of Huxley; nor did I recognise any allusion even to his work. Both these extremes should surely be avoided. But though such considerations passed through my mind, I had no difficulty in choosing a subject.

This is the inaugural lecture of a series instituted to honour and commemorate an able, a laborious, an unselfish and generous physician and philanthropist, a man who loved his profession and his fellow-creatures; and I have chosen to speak to you of "the ideal physician." I am not careful to define what I mean by the word physician. It is, of course, a misnomer, meaning properly a natural philosopher, or what some people now call by the ugly name of scientist. But the conception has been gradually narrowed in this country, until nowadays in common speech it is confined to those who belong to the College, and practice according to its requirements. No doubt a certain dignity is maintained by the reception of payment in the guise of a fee: the transaction is thus lifted in some measure above the mere commercial level, with its liability to chaffering and haggling. "Let baseborn peasants buy and sell! I gave the cloak to thee," said Syloson to Darius. Less and less can this unpractical view obtain in a country where material civilisation and luxury advance as they do in ours; but the tradition is an honourable and generous one; and we may be permitted to hope that it will not yet altogether perish from among us.

The subject might be envisaged from more than one point of view. I shall endeavour to treat it historically.

The beginnings of medicine are inscrutable: those of the profession are obscure. It is not really an offshoot from the clerical one, as is by many supposed. When anthropologists wish to get as near as may be to the beginnings of institutions, they investigate the customs of contemporary savages. The Australians are not so black as they are painted, nor so primitive as they are called; but they may serve for an example. They know the uses of sundry excellent drugs, and of some good surgical procedures: their treatment of snake-bite, for example,

is extremely judicious, and seems to be occasionally successful. But they have no acknowledged mediciners: as Dr. Roth says, these things are common knowledge, however learned. I suspect it is in the hands and brains of the old women of the tribe. The so-called medicine men, wizards or conjurors, who are the first stage of the evolution of the priest, have nothing to do with it; and this seems to be the general rule elsewhere, and at considerably later stages of civilisation. Asa, King of Judah, was blamed because, when in his old age he was afflicted with gout, he consulted the physicians rather than the priests. Where superstitious feeling is strong and science at a discount this antagonism still crops out as it did of yore. In Asia Minor, where I once had a little gratuitous practice among the Moslem, my rivals were the Mullahs, who read the Koran over the sick person with curative effect, much as the Peculiar People, Christian Scientists, Mormons, and the like do among ourselves.

An exaggerated respect for authority is an impediment to the progress of medicine, as it is to that of every art or science; and it is so whether the authority so worshipped is supposed to be religious or scientific. On the other hand, the stability and durability of nations or political powers are greatly favoured by such excessive reverence for authority. This characteristic was strikingly marked in the four countries in which, owing to their physiographical endowments, civilisation was apparently earliest developed to a high stage. These were Egypt, the valleys of the Euphrates and the Tigris, and, somewhat later, India and China. In all of these the progress of medical science appears to have been early arrested; and the practitioners of medicine, accustomed or even compelled *jurare in verbo magistri*, naturally failed to make any further advance. The surpassing excellence of the teacher, in accordance with Emerson's principle of compensation, became an actual obstacle to the progress of his disciples and their posterity. Charaka and Susruta were the Hippokrates and Galen of Indian medicine. Some of their work might be read with instruction even at the present time; and if I had to borrow the portrait of a perfect physician from any single writer or book I could mention, I am

by no means sure that I would not choose the Shastres. What can be more important for the physician (and for his patients) than that he should have a good memory and a calm temper? These were put in the forefront of necessary qualifications by the old Hindu sages; and many of their medico-ethical precepts are equally commendable, and would be as useful to the young European as they doubtless were to the young Hindu practitioner. The union of practical observation and training with a thorough knowledge of the Shastres was insisted on; but unhappily, in medicine as in religion, dogma is more tenacious of life than practical morality or right conduct, and in modern Hindu medicine there is not very much that is worthy of respect.[1]

I am unaware whether much is known as to the state of medicine in the latter days of Babylonia; but the Laws of King Hammurabi seem to indicate that in early days it was in low estimation, that surgery was more cultivated than medicine, and that its practitioners were in an inferior and precarious position.

As for Egypt, Herodotus says that every physician applied himself to one disease and not more; or rather, as he subsequently qualifies the statement, some of them were for the eyes, others for the teeth, others for the head, others for internal diorders, and so forth. This excessive specialisation indicates, I think, a stereotyped condition of the whole art, rather than that accumulation of minute knowledge which nowadays leads to a similar division of labour. Probably none of his successors dared venture to improve upon the dicta of the universally-gifted semi-divine Ierhotep. It is a marvellous and a melancholy consideration that with all the anatomical opportunities supplied by their practice of embalming, the Egyptians just missed the discovery of the circulation of the blood.[2] That Darius's surgeons were Egyptians was probably due less to their reputation for extraordinary skill than to the fact that Darius, himself belonging to a military, aristocratic, and comparatively uncivilised race of highlanders, had participated in Cambyses's conquest of the highly-civilised Egyptians.

[1] Wise's *Hindu Medicine*.

[2] Caton's Harveian Lecture, *Lancet*, 1904, i. 1769.

Herodotus tells us that whereas Darius had dislocated his ankle by leaping from his horse during a hunt, these Egyptians were unable to cure him, and indeed rather aggravated his condition by their unskilful procedures. The case is somewhat difficult to understand from Herodotus's story; but the King was ultimately restored to health and his lameness cured by the treatment of Demokedes of Krotona, a Greek surgeon of established reputation. I speak of him now, firstly because he is the first known to us with certainty of a long line of illustrious healers of men; and secondly because he affords the first known instance of professional loyalty, a virtue certainly essential in the ideal physician. For whereas Darius, though not more cruel than the ordinary Oriental despot, had ordered the wretched Egyptians to be impaled as the penalty of their failure, Demokedes intervened, and obtained their pardon from the tyrant. He may, of course, have been actuated by a judicious dread of allowing the creation of an inconvenient precedent; but one prefers to acknowledge the probability of a better motive.

As there were brave men before Agamemnon, so doubtless were there skilful healers before Hippokrates, and even before Demokedes; nevertheless, the coming of Hippokrates might, with more truth than in another famous instance, be compared to that of "the sun in his strength." His contemporaries, men of an average type inferior to that of no earlier or later race, held the same high opinion of him which his writings, fragmentary though they be, have ever since maintained in existence. It would be no exaggeration to say that there were few subjects pertaining to medicine, of which anything was known before the invention of the microscope, of which Hippokrates had not taken thought; and that no physicians, and perhaps few surgeons, have not been better equipped for practice by a perusal of his works. What does he say, then, as to the qualifications of the physician? The student should, he tells us, have sufficient capacity, leisure and means for obtaining instruction in a favourable place, whereby I suppose he meant a place where sufficient material was at the command of competent teachers, as may have been the case at Krotona

and at Kos. He must bring to the task industry and perseverance. He must, above all, be καλος και αγαθος, fair without and good within. We may take καλος in different senses: if we interpret it "handsome, prepossessing in aspect," all here and on this particular occasion will be ready to recognise its applicability; but no doubt Hippokrates intended it to have a wider application. It is true that he did not disdain—what worldly-wise man would?—to consider sometimes what methods of behaviour were conducive to what we among ourselves call success in practice, and how one could most favourably impress his clientry; but this was not the leading object in his mind: he desired above all things that his pupil should become a good physician, a skilful healer, and attain success, if he did attain it, by real desert and legitimate means; that he should cultivate "whatsoever things were lovely and of good report."

Thus in the "Oath," that curious and valuable document, which Adams pronounces pretty certainly authentic, that is, the genuine production of Hippokrates, and which may have been the engagement entered into by his pupils on their reception as such, we find, indeed, stipulations inculcating loyalty to the profession and the teacher, but other and more numerous ones directed to the culture of general as well as of professional rectitude.

The pupil is to reckon him who has taught him this art of medicine equally dear with his parents, to share his substance with him and minister to his necessities if required, to look upon his offspring in the light of brothers, and to teach them this art without fee or stipulation, and to impart the knowledge of it to his own sons and to those of his teachers, and to disciples bound by a stipulation and oath according to the law of medicine, but to none other. He is to give no deadly drug to anyone, whether spontaneously or on request, nor to give anything deleterious to a woman; and to live and practise with purity and holiness. Into whatsoever house he may enter he must enter with the object of benefiting the sick, and he must abstain from every act of mischief, corruption or vice. And whatever he may come to know, whether in connection with his professional

practice or otherwise, which ought not to be spoken of abroad, he is not to divulge, but to keep secret. This brief but admirable code has come down to us through more than two thousand years: we still hold to it in substance; and within its limits it is scarcely capable of improvement.

Another important consideration may be included under the word καλος. The healer must be himself hale—hale and whole. He needs not to be athletic, but he must be physically sound; and more especially his nervous system and organs of sensation must be healthy, though sensitive. In few if any professions is acuteness of the senses of sight, of hearing and of touch equally essential.

Consider again the first Aphorism, the former part of which is familiar to all of you, though not all of you are aware that we owe it to Hippokrates: "Life is short, and the Art is long; the occasion fleeting;" that is, as Adams interprets it, "the season during which remedies may be successfully applied soon passes"; "experiment is fallacious" or "dangerous," "and decision is difficult." "The physician," he continues, "must not only be prepared to do what is right, that is what is necessary or expedient, but to make the patient, the attendants, and all around co-operate with him in his object."

How deeply this master of his art—for he was its master,—and if the art was very imperfect, as it still is after seventy generations of men have struggled with it, that does not alter the fact that he brought to its study and practice a brain nowise inferior to that of any of the illustrious men who have followed in his path—how deeply, I say, did this great master feel the difficulties and responsibilities attaching to medical practice.

"Who shall decide when doctors disagree?" How often are we reminded by others of this trite saying, always in a somewhat depreciatory sense, as though it were a reproach to the medical profession that such disagreement should be not only possible, but frequent. I once heard a very distinguished judge make use of the expression in that sense. In truth, medicine, dealing as it does largely with the unseen and the conjectural, is a far more difficult subject than law; and yet we are accustomed to see without surprise one legal case after another made the

shuttlecock of eminent lawyers, as it passes, or rather wriggles and zigzags from one appeal court to another.

The saying was not in its origin meant to apply to mediciners at all. It was the doctors of the Middle Ages, the holders of degrees in arts, philosophy and divinity, the angelic and seraphic doctors of the church, who wandered in the tangled mazes of metaphysics and theology, and whose very life was in disputation and paradox, who were really pointed at.

It is perhaps to be regretted that this word doctor, properly signifying teacher, and applied to those only who were considered competent to teach their art and mystery, should in England have become the popular appellation of professors of the healing art, of whom at most a minority have any title to it whatever. It is a mistake peculiar, I believe, to English-speaking countries. Leech, meaning a healer, would be preferable, as it is found with that signification in all or almost all Germanic and Keltic languages. Thus Mac-an-leigh—son of a physician or healer—was the true patronymic of David Livingstone, Livingstone being a random attempt at a translation from the Gaelic into a well-known Saxon surname.

The usual controversies and parties in medicine had their origin as far back as the time of Hippokrates: they are indicated rather than debated in his writings, and have come into prominence whenever the science or art of healing has made any notable advance.

Whether and to what extent philosophical or scientific education should precede practical teaching, and whether and to what extent practice and observation outweigh the value of such education, gave rise to as much doubt and division then as now.

Galen gives us what is evidently meant for an estimate or portrait of Hippokrates; it may be somewhat idealised, but, after all, it is the ideal physician whom I desire to portray. "He who esteems opulence," he says, "more than virtue, and who has learned his art in order to amass riches rather than for the good of human kind, cannot even draw near to the object which medicine aims at. . . . It is impossible, in fact, to be covetous of riches, and at the same time worthily to cultivate this noble

art; he who attaches himself ardently to the one will certainly neglect the other." "If one could find nowadays," he continues, "a physician so free from sordid considerations that he would not only teach by discourse but demonstrate by his conduct that one should be content with the necessaries of life, with enough of food, drink, and shelter, such a physician would disdain the favours of kings such as Artaxerxes and Perdiccas: he would be ready to treat the latter if he were suffering from a malady which required his help; but rather than remain as his official attendant he would wander to Krannon or Thasos, where his skill was needed by the poor inhabitants. He would leave his disciples to minister to the wants of his fellow citizens, while he himself would think it necessary to travel far and wide in order to verify by experience the theoretical views at which he had arrived, on the nature and relative merits and the influence on health of sites and aspects or exposures, and of potable waters. No covetous or luxurious or sensual man could behave thus," he continues, "the true physician is an ardent lover of labour, a friend of temperance, a disciple of the truth." He "scorns delights and lives laborious days."

Galen, going astray as he sometimes did in the elaboration of verbal logic and the Socratic method of reasoning, maintained that the true mediciner must of necessity be a philosopher, because the possession of the characteristic virtues of a philosopher was essential for the right practice of physic. But apparently he included besides wisdom, justice, temperance, altruism, skill in logic, and what we used to call natural knowledge; and some at least of these, he remarked, could not be learned without a master and without practice. He thought, therefore, that a good general education such as was possible and usual in his days was a necessary preliminary; and in discussing the demerits of the several medical sects then existing he bore particularly hardly on the Empirics, who thought they needed nothing but practical knowledge.

Celsus, however, seems to me to have put the case better, and after briefly stating the arguments on the subject which were relied on by the several sects he summed up with Latin directness. For whereas the knowledge of anatomy was very

imperfect, and that of physiology and pathology dubious or non-existent, and the results of vivisection were apt to be deceptive, Celsus briefly commented that nothing contributed more to a rational method of cure than experience; yet that many kinds of knowledge, though not properly nor absolutely essential to the art, were yet helpful to it by quickening the understanding of the practitioner; therefore the contemplation of the nature of things, though by itself it could not make a physician, yet made a man more fit for the practice of the art, which after all was and must be largely conjectural.

Since then our knowledge of the ancillary sciences has been vastly, in some directions one might almost say infinitely, advanced, yet Celsus's statement remains in the main true.

A working hypothesis was as necessary to the ancients as to us, and their best men groped after one, if haply they might find it. They talked learnedly about temperatures and humours, and found these notions useful in ordering and classifying the knowledge they derived from experience, but beyond that they could not go, nor was any real advance made for about fifty generations, or until the invention of the microscope. That men yearned after something better was evidenced by the discreditable sense which came to be attached to the word empiric.

During the Dark Ages the medical traditions of the Greeks were carried on by Arabian, Persian, and Jewish physicians. We know the names of some of these, as Avicenna, Abenzoar, and Razi; and some of their writings have survived; but of the men we can say little or nothing. Nearly the same thing applies to our own countrymen of that period, though they, like the other European nations, were intellectually inferior to the Orientals; they knew, or thought they knew, a great deal about the properties of drugs and herbs, partly well founded, partly fanciful, and derived from Greek tradition.

As the bright blossom of the Semitic races faded and withered, blasted in the West by the arid blight of Catholicism, and in the East by the substitution of Turkish for Arabian domination, and later by the destructive tide-wave of the Mongol-Tartar flood, intellectual activity sought refuge from the

savage and turbulent eddies of Western politics in the quiet, smooth waters of the cloister. We all know the explanation which the apostle of heredity, Francis Galton, found for the lack of progress during the Middle Ages. When inventiveness and love of knowledge were shut up in monasteries and debarred from matrimony, while sturdy stupidity and athletic Philistinism ranged abroad and propagated the species, how could mental development and its fruits make any material advance? There is a well-marked and recognisable difference, generally speaking, between the capacious braincase of a scholar, dug up in the burial-ground of some ruined abbey such as that of the Cistercians recently excavated here in Bristol and the bony, low-browed cranium that we howk up from some forgotten battlefield.

But the absorption of the medical into the clerical profession had the evil effect that might have been anticipated. A blind conservatism took the place of a search for truth; the dogmatic school had too much the upper hand of the empiric, and scholarship of practical skill. The great Linacre, the glory of medicine in the days of Henry VIII., the friend of Erasmus, and the founder of the College of Physicians, was a clergyman; and though he was esteemed as skilful as he was learned, the medical writings he left behind him were all translations from Galen; which is as much as to say that he made no attempt to add to what he considered the true faith.

So strong indeed was this attachment to dogma, that as late as the year 1559 Dr. John Geynes, a man of some mark, was cited before the College for impugning the infallibility of Galen; and only on his humble recantation, signed with his own hand, was he absolved of heresy and received into the College. This, observe, was in 1559. During the latter half of that century several leading members of the College were noted as zealous Catholics. Clearly the scholarly and conservative element still predominated over the scientific, the practical and the progressive. But better times had now arrived, "the spacious times of great Elizabeth;" and medicine was to have its share in the glories and the achievements of the new era.

Christopher Johnson, the accomplished translator of the *Frogs and Mice*, gave up his successful career as head master of

Winchester School to practise medicine in London, and to write on prophylactics. Penny, a second Dioscorides, as Gerard called him, a clergyman, but—significant fact—a heterodox one, was a really distinguished naturalist. William Gilbert, one of the Queen's physicians, was the founder of magnetism as a science, and the admired of Galileo.

These were the first-fruits of a long succession of men who illustrated their profession by their accomplishments and advanced it by their ability and industry, their imaginative power and their open minds.

On the whole, it would seem that though some who richly deserved success in life never attained to any great measure thereof, yet those who held the front rank in the estimation of their contemporaries were those who most deserved it. They were usually men of learning and travelled men; it seems to me that in somewhat excessive proportion they were the sons of successful apothecaries, of physicians or of dissenting ministers, as senior wranglers are nowadays; in a great many cases they were men distinguished in science and literature outside their profession — as botanists, antiquarians, chemists, natural philosophers, scholars, historians, founders or fellows of the Royal Society. But they were also men of high character and generous disposition, and of affable manners.

The following character-sketch of Dr. William Hunter embraces most of the mental qualities which both deserve and obtain success:[1]—

"There was something very engaging in his manner and address, and he had such an appearance of attention to his patients as could scarcely fail to conciliate their confidence and esteem. In consultation with his medical brethren he delivered his opinion with diffidence and candour. In familiar conversation he was cheerful and unassuming. All who knew him allowed that he possessed an excellent understanding, great readiness of perception, a good memory and a sound judgment; to these he united uncommon assiduity and precision."

Of Dr. Warren, long and perhaps deservedly the head of his

[1] I am much indebted, in this part of the lecture, to Dr. Munk's Roll of the Royal College of Physicians.

profession, it was said that though his natural temperament was cheerful, it was remarkably flexible and sympathetic, and that no one ever had recourse to his advice as a physician who did not remain desirous of gaining his friendship and enjoying his society.

Of course there were exceptions to the rules I have ventured to lay down. Radcliffe was a bear, but he was a genius of the very first water and rarity; and though genius is proverbially difficult of definition, I think we may say with some confidence that it is apt to be accompanied by a certain degree of contempt for human kind and for the rules of society. His want of learning was probably exaggerated by himself and others. He was a graduate of Oxford; and the mode of disposal of his vast wealth showed his respect for erudition.

William Chambers, again, the leading physician in London sixty years ago, is described as possessing no genius, and no brilliant talent or originality. But he had in an eminent degree wisdom, judgment, that peculiar balance of faculties which enables a man to think soundly and to be a safe adviser and guardian; he had also great energy and industry and indomitable perseverance. He is said to have made clear and concise memoranda of every case that came before him, and to have filled therewith no less than sixty-seven thick quarto volumes, an astounding amount of labour for a man with an enormous practice. If genius were really (as it is not) an immense capacity for taking pains, Dr. Chambers would have been a great genius.

One characteristic of the ideal physician hitherto not touched upon is the contempt of danger in the performance of duty which he shares with the good soldier. Of this striking instances occur in the Roll of the College. The names of men who remained at their posts during frightful epidemics of plague, when many others deserted and fled for safety into the country, are well deserving of commemoration. Thus Thorius and Conyers died; and three young men, Alexander Burnett, Glover and Odard, who had dared to investigate the *post-mortem* appearances in this fell disease. Wharton also, eminent as an anatomist, remained in the city to combat the pest, and happily survived, as did also Barwick and Hedges.

As Thorius, a Belgian by the way, and his fellows sacrificed life to duty and conscience, so did Lettsom the gifts of fortune. Inheriting a large property in the West Indies, consisting of a number of negro slaves, he manumitted the whole of them, though the ideas of the period would have permitted him to retain or sell them without blame. He thus reduced himself to penury; but it is gratifying to know that he subsequently obtained and enjoyed the most lucrative practice in London.

Coming nearer to our own time, or rather to the present time, I am irresistibly led to bethink me of the many eminent men whom I used to know intimately, and on the footing of friendship.

There was Alison, the venerable and venerated philanthropist. I can recollect when age and infirmity, of body but not of mind, made him quit his physicianship and clinical professorship in the Edinburgh Infirmary. An interesting and amiable patient of his was just then struggling doubtfully through an attack of typhoid, but after his departure disappointed our hopes by dying suddenly from an imprudent exertion, undertaken against orders, to save trouble to the nurse. A few weeks afterwards I met Dr. Alison painfully dragging his large but feeble frame up the Infirmary stair. "Dr. Beddoe," he said, "you can save me this labour. I only want to know how Monro has got on." I told him the mournful facts. His countenance fell, and without a word he turned and hobbled down the stair. I never saw him again; I doubt whether he ever again left his house.

Then there were Simpson, Christison and Syme, the three stars of Edinburgh in the middle of the century; there were Jenner, James Clarke, Walshe, Parkes, Gull, John Marshall, and William Roberts. They were men of culture as well as of ability and character; their ability was almost as apparent to the laity as to their brethren; and in most of them intellectual energy found a vent in the cultivation of other sciences or arts, generally those ancillary to medicine, but always in strict subordination thereto; much as the molten lava of Etna or Vesuvius cannot all find its way out through the great crater, but must break out in some subordinate vent on the side of the

cone. All these men were amiable and of attractive personality, with perhaps two exceptions, of whom the καλος could not be so confidently asserted as the αγαθος.

But I recall the melting sympathy of Simpson, his Jove-like head and kindly, blue eyes; the manly, commanding, almost regal personality of Christison; the keen, practical intellect of Syme and of Jenner; the extraordinary perfection of the senses, and consequent accuracy and quickness of observation and diagnosis, of Walter Hayle Walshe; the high, æsthetic culture and sweet reasonableness of John Marshall; the knowledge of mankind and the exquisite and kindly tact of Sir James Clarke and Sir William Gull; in little William Roberts the lightning quickness of thought, and the warm, genial humour of that "abridgment of all that was pleasant in man"; and in Edmund Alexander Parkes "every virtue under heaven."

It is perhaps hardly admissible to speak of one who is still with us. But I should like at least to mention Lister, whose achievements for the benefit of man have placed his figure in the very centre of the pediment of the great Medical Institute at Rome, and whose benevolent countenance is a true index of his character.

I am not thinking just now of great teachers, but of great and successful practitioners, otherwise Sharpey should be named, big in mind as in body, under whom no pupil could sit and not know his physiology; and Virchow, that magnet of disciples, medical and anthropological; and Paul Broca, whom to know was to love and to labour for, and to think one's self richly rewarded by his approbation.

None of us can attain to our ideal, but to some happy men it is given to approach it, and I think we may number the subject or occasion of this lecture among them. Too indiscriminating a eulogy would not gratify the departed, if he could invisibly listen to it, any more than I should feel happy in uttering it. "Can you not praise the dead man sufficiently unless you tell lies about him?" said Leslie Stephen, best and most veracious critic of men's lives in our time. Surely in this case we can, and if we could not it would be better to keep silence. But in this man I have to do with

one who might have said on his deathbed, with the illustrious John Fothergill, that "he hoped he had not lived in vain, but in a degree to answer the end of his creation, by sacrificing interested considerations and his own ease to the good of his fellow creatures."

Without entering into metaphysical subtleties, I think it may be said that we most of us feel that God gave us our intellect, but that we ourselves are responsible for its cultivation and the use we make of it. Edward Fox's intellect was not remarkably brilliant or powerful, but it was clear, healthy, and serviceable; and he devoted himself to its cultivation with a zeal and industry that were an example to us all. Very early in his career I recollect his saying to me, "It is the object of my life to become as good a physician as I can," and well and thoroughly did he carry out that intention, neglecting no subject that belonged to his department, but making some, such as the pathology of the nervous system, peculiarly his own.

Knowledge is power and riches are power; but a knowledge of medicine, such as he built up and retained, is the power of doing good, and often carries with it, as it did in his case, the will to do it, even at great cost of time and labour and thought. It is a trite saying that the healer, the leech, the mediciner—I put aside the word doctor advisedly—is a philanthropist by profession; and he must be a bad man indeed whom the constant practice of so beneficent a profession does not make better. A great and good lawyer, Matthew Davenport Hill, long one of the social ornaments of Bristol, told me he envied me my profession, for, said he, "a medical education tends to make a man better, but a legal one tends to make him worse."

And Fox was a generous man. He was never rich; but even if he had been rich, if he had had that drawback to chill and narrow his spirit, I am sure he would still have been generous, for his heart was large and his soul was warm and sympathetic. He early gave hostages to fortune, but the influence of his domestic circle could but strengthen and foster his generous instincts. During some years he had an uphill race to run: ahead of him were Symonds, the most accomplished and learned of physicians, and Budd, the brilliant if

erratic and not always appreciated genius; and he had besides some formidable competitors; but his house was always one to which other strugglers might confidently turn for help and encouragement.

A few years after he had begun practice a serious epidemic of typhus fever broke out in the lower parts of East Bristol. There was then no organisation ready to meet and cope with such a calamity: we had no Medical Officer of Health to say to it, "Thus far shalt thou go and no farther." The better educated people in the slums—nurses and Bible readers and the like—stayed at their posts, but the infection was very fatal among them—brains are a disadvantage in true typhus. The situation appealed to Edward Fox's benevolence and his medical instincts; he created an organisation to meet it, and devoted himself personally to the work. I believe his growing but still small practice suffered considerably, which he could ill afford, but the plague was stayed, and doubtless many lives were preserved.

Fox was truly sympathetic. The quality is an aid to success in practice in more senses than one, but if it sharpens the weapon it corrodes the scabbard. Symonds, who hid a warm heart under a somewhat cold exterior, told me once that though he devoted his mind completely to every case until he had done with it, he made it a rule to dismiss it from his thoughts as soon as he reascended his carriage. A wise rule, no doubt, with his enormous consulting practice; but I do not think Fox could have done likewise. Sitting by his bedside during one of his fits of gout, I was discussing with him the possible exciting causes of the attack. "But after all, Beddoe," he said, "there is nothing to bring on a fit of the gout like a run of anxious cases." It was a cruel inheritance which dogged him through life, and ultimately dragged him down: for he was always a temperate and abstemious man in his own habits, and latterly was an eloquent and forcible preacher of those virtues to others, both on scientific and on moral grounds. In fact, the cause of temperance, the anti-alcoholic movement, has lost in him one of its most powerful champions, at a time when his services were needed almost as much as ever; a champion all the

more powerful perhaps because he was no fanatic, and though himself a total abstainer for very many years, was always in perfect charity with those who could not see as he did.

Another cause which he had very much at heart was that of medical missionary enterprise, which naturally commended itself to a man like him, altruistic, truly and spiritually religious, and at the same time zealous for the extension of the benefits of enlightened medical treatment to the ends of the earth. Nor did he neglect the general interests of the profession at home, but for many years devoted much of his scanty leisure to the work of those valuable societies which strive not only to advance medical education and progress, but to maintain a healthy social and ethical tone among their members and in the whole professional body.

His great objects in life were, then, to become a thoroughly good physician, and in that capacity and in such other ways as seemed possible to serve and benefit human kind. And he had the reward which success in such aspirations seldom fails to bring, "Love, honour, troops of friends."

Love and honour will remain attached to his memory: alas! that it is only a memory, and that he himself was not permitted longer to enjoy them.

ON TORSION OF THE SPERMATIC CORD, WITH THE REPORT OF A RECENT CASE.

BY

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TORSION of the spermatic cord is a rare condition, and one which has seldom been recognised before the affected parts have been laid bare by operation. I believe most surgeons would consider the possible existence of the condition if confronted with a case in which severe pain and swelling in the groin had attacked a male possessing an imperfectly descended

testicle on the affected side. But I suspect that few of us, when considering the diagnosis of acute painful enlargements of the fully-descended testicle, are in the habit of recollecting that the cause of the swelling may be torsion. I confess that in the past such has not been my custom, and that, partly for this reason, when at last I met with a case of testicular swelling from that cause, I failed to recognise its nature. The nearest approach I made to a correct diagnosis, if I may speak of approaching that which I left so distant, was to recognise that the case was peculiar and one which I did not fully understand. Later, finding this mental position uncomfortable, I took the downward step of attributing the swelling to a cause entirely different from the real one. The following are the notes of the case :—

W. S., aged 23, a labourer, came to my out-patient department at the Bristol General Hospital on Friday, August 5th, 1904, complaining of pain and swelling in the right testicle and scrotum. These troubles had begun five days previously without known cause. No strain or blow had preceded their onset. There had been an attack of vomiting at the beginning, but none later. The first symptom had been pain, chiefly in the groin, and the swelling of the testicle had been first noticed a few hours later. For five days the swelling had gradually increased and the pain continued.

Examination showed the right testicle swollen to the size of a large hen's egg and very tender. The organ felt heavy and firm. It was most firm posteriorly. In front, in the upper two-thirds, deep fluctuation could be elicited. The spermatic cord and vas deferens felt absolutely normal above the swelling. The scrotum on the same side was reddened and slightly œdematous.

There was no history of venereal disease, and the urine was clear and free from gonorrhœal shreds or other deposit. Rectal examination showed that the prostate was normal, and that there was no enlargement of the vesiculæ seminales.

After questioning him, the man stated that on two occasions, one two years, the other eight weeks previously, a swelling had descended from the groin of the same side (right), with uneasiness rather than pain, and had remained for a few hours. On each occasion this had been dispelled by rubbing the groin. He described the present swelling as having descended from the groin in a similar way. [I surmise that at least in the present instance the pain in the groin had led to the patient's misconception on this point. During the whole time he was under my observation there was no sign of any abnormality in the groin. It seems not unlikely that the groin troubles on the

other two occasions were the result of a slight degree of torsion of the spermatic cord, and that coincidently with the friction the torsion had disappeared.]

The man was first treated as an out-patient, but at the end of ten days, no improvement being manifest, I admitted him as an in-patient. On the eighteenth day of his illness I explored the swelling, which had changed very little, though if anything it had increased a little in size and become slightly redder and more painful, with a needle and syringe, using full antiseptic precautions. The needle was passed twice into the deeply fluctuating area in front. About one drachm of blood-stained fluid was withdrawn. I considered the fluid to be inflammatory effusion in the tunica vaginalis secondary to some form of testicular inflammation. A further period of rest in bed was ordered. During the following ten days discomfort rather than pain was felt in the testicle. On the thirty-second day of the illness ether was given, and I exposed the testicle by incision. For a day or two previously there had been a return of pain, and the skin had become more reddened and adherent to the parts beneath and fluctuation more distinct. At this period I held the view that most probably the trouble was of tubercular origin, the more because there was a strong family history of phthisis.

At the operation the skin and sub-cutaneous coverings of the testicle were found to be œdematous and about three-quarters of an inch thick. The parietal layer of the tunica vaginalis was also thickened, and in some places directly adherent to the visceral layer, in others separated from it by blood-clot. From the uppermost part of the sac, however, about a drachm of turbid yellow fluid escaped, and this had an offensive odour. The testicle and epididymis were soft and mottled greyish-yellow and brownish in colour. Immediately above the testis, in the highest part of the tunica vaginalis, the spermatic cord was found to be twisted, the condition being recognised by the spiral course of the dilated veins and by spiral grooves. It was not difficult to untwist the cord. To completely do this the testis had to be rotated certainly through two half-turns. At the time I estimated the degree of twisting to be three half-turns. The epididymis was a little swollen, but had not a hemorrhagic appearance. It lay obliquely along the uppermost border of the testis, the latter having its long axis almost horizontal. Though the testicle and epididymis had their long axes almost horizontal, there was a slight inclination of these downwards, outwards and backwards, and the globus major was slightly lower than the tail of the epididymis. The twisted part of the spermatic cord, which was entirely within the cavity of the tunica vaginalis, had a vertical length of about half an inch. The testicle, at this stage, the adhesions to the tunica vaginalis having been separated, hung suspended from the top of the tunica vaginalis by a short length of

twisted spermatic cord. The twisted cord proved, in short, a pedicle by which the testicle was suspended in the vaginal cavity of the tunic, and the organ had no other attachments. As the testicle was obviously gangrenous, it was removed with its tunic. The spermatic cord was ligatured about half an inch above the twisted portion, where it appeared quite healthy. The wound was closed, except where a small drainage-tube was inserted. Primary union followed, the wound running an apparently aseptic course.

Examination of the parts removed, after preservation for some weeks in formaline solution, shows that the twist was from within out, or in the direction opposite to that of the movement of the hands of a watch. When the cord is untwisted by one half-turn, the globus major and the upper pole of the testicle to which it is attached are brought from an inferior, posterior and external position to one superior, anterior and internal. Another half-turn in the same direction carries the globus major again to a posterior and external position, but leaves the long axis of the testicle and epididymis horizontal. It seems a little uncertain whether the testis was twisted another half-turn during life or not. If the testicle is given another half-twist, *i.e.* a third, in the direction opposite to that of the original twist, the free border of the upper pole of the testicle will be directed forwards; in other words, the testicle will then be horizontal, with the tail of the epididymis directed backwards, that is, will be in a position of combined "anterior inversion" and "horizontal inversion." It is certain that the testicle before torsion of the cord occurred had the abnormal position of "horizontal inversion." I believe now, as a result of a careful examination of the specimen, that the degree of torsion was two half-turns, and that before torsion the testicle had the abnormal position of horizontal inversion, but not that of anterior inversion. In addition, the testicle is in shape more flattened from side to side than normal.

The organs were not cut into until they had been hardened in formaline for several weeks. The section shows that for one-third of an inch at the periphery the testicular tissue is white in colour, but the central parts, the rete testis, and the whole of the epididymis are of a homogeneous, dull brick-red colour. The red colour must be due either to the previously-congested state of the affected parts, or to congestion together with extravasation of blood.

The chief facts of interest in the case recorded above may be summarised as follows:—A young adult, with the testis (right) completely descended, but possessing the anatomical peculiarities of being suspended freely in a horizontal position from the top of the tunica vaginalis by a pedicle of mesorchium, was attacked rather suddenly with severe pain in this testicle,

followed in a few hours by swelling of the organ and œdema and redness of the scrotum, and on the thirty-second day, an exploratory puncture having been made on the eighteenth day, the cause of the trouble was found by operation to be torsion of the spermatic cord and gangrene of the testicle.

The first recorded case of torsion of the spermatic cord appears to be that of Delasiauve in 1840. The next, in order of publication, were those of Scarenzio in 1859, Langlet in 1871, Langton in 1881, and Nicoladoni in 1885. Nicoladoni thought he had discovered an undescribed affection when he published his first case, and must have been unaware of the earlier publications mentioned above. To the present time between forty and fifty cases of torsion have been recorded. The best account of the affection with which I am acquainted is that of André Lapointe in a small monograph entitled, *La Torsion du Cordon spermatique et l'Infarctus hémorrhagique du testicule*, 1904, and I must here express my indebtedness to that writer for many of the facts, considerations and references given below.

Torsion of the spermatic cord has been met with in two chief forms, viz., first, that in which the testicle, together with its tunica vaginalis, is rotated, the cord being twisted outside the tunica vaginalis; and, secondly, that in which the cord and testicle are twisted within the tunic. The first form, named *bistournage accidentel* by Lapointe, is comparable to the operative bistournage carried out in certain animals. The second form has been called *volvulus of the testicle* by the same writer. Three cases only of accidental bistournage seem as yet to have been recorded, viz. one each by Delasiauve,[1] Legueu,[2] and Barozzi.[3] In but one of these was the testicle fully descended, and it is possible in that case, and certain in the other two, that the torsion was produced by the sudden and forcible expulsion of an imperfectly-descended testis through the external abdominal ring. Bistournage, as practised on certain animals, consists of two acts. By the first manipulations the adhesions between the scrotal tissues and the external surface of the tunica vaginalis are broken down; by the second

[1] *Rev. méd. franç. et étrang.*, 1840, i. 363.
[2] *Bull. et Mém. Soc. de Chir. de Par.*, July 15th, 1896.
[3] *Bull. Soc. Anat. de Par.*, 1898, lxxiii. 188.

the testicle, together with its tunic, is rotated through at least four complete turns. This degree of torsion obliterates both the veins and arteries of the cord completely, and the testicle passes into a state of anæmic necrobiosis, followed by atrophy. In torsion of the cord as met with in man, on the other hand, the testicle passes into a state of hemorrhagic infarct and subsequently atrophies if the parts remain aseptic, or becomes gangrenous if the parts become septic. The difference in the results of operative bistournage in animals and torsion of the cord in man is due to the difference in the degree of interference with the permeability of the vessels of the cord. In the former the arteries and veins are completely obliterated; in the latter the arterial obstruction is partial and the venous complete, or nearly complete.

Of volvulus of the testis between forty and fifty cases have been recorded. In addition a number of cases have been recorded in which the testicle had passed into a state of hemorrhagic infarction, like that produced by torsion of the cord, but in which no such torsion was found.

Causation of Volvulus of the Testicle.—The testicle, with normal anatomical arrangements, rests upon the posterior wall of the scrotum much in the same way as certain parts of the colon rest upon the posterior abdominal wall, and has only a partial covering of serous membrane. There is no mesorchium or mesotestis composed of two layers of serous membrane, and comparable to the mesentery of the small intestine. With these arrangements volvulus of the testicle is probably impossible. The one constant abnormality found in cases of volvulus appears to be the presence of a more or less elongated mesorchium or mesotestis, and the suspension of the testis in the cavity of the tunica vaginalis by this mesorchium. It is this mesorchium, forming a suspensory pedicle for the testicle and containing the spermatic cord, which becomes twisted. This relation of the testicle to its fibro-serous tunic is analogous to that of the heart to the pericardial sac. In one exceptional case, recorded by Lexer[1], the twisted pedicle suspended the testicle but not the epididymis. The torsion had taken place

[1] *Arch. f. klin. Chir.*, 1894, xlviii. 201.

between the globus major and the superior pole of the testicle. The rest of the epididymis was unattached to the testicle, and lay outside the tunica vaginalis.

It is important to remember that the testicle with a twisted cord has been found perfectly descended and imperfectly descended about an equal number of times. The essential cause of torsion is not therefore imperfect descent of the testicle, but, as we have seen above, the formation of a mesorchial pedicle. In its abdominal position, before descent, the testicle possesses a mesotestis or mesorchium. During the normal descent of the organ this mesotestis disappears. With imperfect or delayed descent, just as with complete descent, the mesotestis may or may not persist. The persistence of a mesotestis does not necessarily cause either imperfect or delayed descent of the testicle, though no doubt it favours these occurrences by interfering with the natural action of some of the forces which normally produce descent. Hence a testicle retained in the groin is more likely to have a mesotestis than a testicle which has passed into the scrotum. Many of the victims of torsion of the cord gave no history whatever of imperfection or delay in the descent of the affected testicle. In fact, a testicle provided with a mesotestis may reach the fundus of the scrotum before birth, and therefore without recognisable delay in descent. Possibly a fully-descended testicle with a mesotestis is more liable to torsion than a testicle with a mesotestis remaining in the groin, for in the former case the mesotestis is more likely to be elongated and attenuated.

In addition to having a pedicle, the testicle, in cases of torsion, has frequently had the abnormal position in the scrotum of either "horizontal inversion," or "vertical inversion," or "anteversion." In horizontal inversion the long axis of the testicle and epididymis is horizontal. In vertical inversion the change of position is the same in kind but greater in degree, and the globus major lies below and the globus minor above. In anteversion the epididymis is in front, and the free border of the testis faces backwards.[1]

[1] I have adopted the English and French phraseology for these abnormal positions of the testicle. German surgeons use similar terms in a rather different sense, and by *inversio verticalis* mean that the change of position is

In these cases it would appear that during descent the testis has been more fixed at its lower than at its upper pole. The upper pole has therefore descended relatively more than the lower, and the testicle has passed into the position of horizontal inversion, and either remained in that position or passed from it to that of vertical inversion, pivoting as it were in these movements upon its lower pole. Kocher has shown that when the testicle pivots in this way on its lower pole the descending upper pole drags with it most of the vessels of the spermatic cord, and separates, to a certain degree, a vascular fasciculus from a deferential fasciculus in the cord. With these fasciculi separated in horizontal inversion, producing the so-called "bifurcation of the cord," it is easy to realise that a smaller degree of torsion will effect a greater degree of vascular obstruction, through one fasciculus compressing the other, than if the torsion takes place with the fasciculi close together, as in the normal cord. In some of the recorded cases of torsion with infarction of the testicle the degree of torsion was only one half-turn. Horizontal inversion existed in most of these cases, and affords an explanation of the great effect of the small twist. Various abnormalities of the tunica vaginalis have been found with torsion of the testicle, such as persistence of the funicular process, with or without a hernia. It is obvious that the more roomy the tunica vaginalis the more easily can the testicle within become rotated. Lastly, the shape of the testicle has been abnormal, *e.g.* flatter than usual, or pear-shaped in some cases.

The exciting causes of torsion of the cord are less understood than the disposing causes discussed above. In some cases torsion has immediately followed the strain of lifting a weight, sneezing, blowing wind instruments, falling, jumping, or at stool. A feature common to all these strains is the sudden and forcible contraction of the abdominal muscles. The testicle retained in the groin is more likely to be affected by them than the fully-descended testicle. In many of the cases of torsion no

round the vertical axis of the testis, and by *inversio horizontalis* that it is round the horizontal axis, both being either complete or incomplete. Thus the "inversio verticalis" of the Germans is the anteversion of the English writers, and the "vertical inversion" of the English is the complete "inversio horizontalis" of the Germans.—*Vide Lehrbuch der Urologie*, Von Leopold Casper, 1903, p. 323.

history of strain was obtainable. The torsion seemed to occur spontaneously, and in some even during sleep. Possibly contraction of the cremaster muscle has been the cause in such cases, or sudden changes in the state of distension of the veins of the cord (Spencer).[1] It is difficult to see how the gubernaculum could bring about sudden torsion of the cord.

The degree of torsion has varied from a half-turn to three complete turns, and has been about as often in one direction as in the other. Sometimes detorsion has been easily effected or has occurred almost spontaneously, especially when the torsion was recent; in others, when adhesions had formed, detorsion has been difficult or impossible.

The appearances of the affected parts have usually been those of hemorrhagic infarction of both the testicle and epididymis, especially of the latter, the organs being swollen, purple in colour, and showing much extravasation of blood on section. The pedicle has been swollen, turgescent and purple, with distension and thrombosis of the veins. In my case the hemorrhagic state of the testicle was much less striking than in most of the others. There has usually been effusion in the tunica vaginalis, often hemorrhagic. In one case, that of Keen,[2] which was associated with a reducible hernia, pyogenic cocci were found in the fluid around the testicle. The state of the parts described is the result of partial or complete venous obstruction associated with the retention of complete or partial arterial permeability.

Symptoms.—The age of patients with this affection has varied from four months (Dowden) to sixty-two years (Nicoladoni). The symptoms comprise those produced locally and those at a distance, the latter being the reflex effects of compression of the nerves in the cord. At first the pain may be lumbar or iliac, but soon passes into the testicle. The abdomen may be rigid and retracted, and the thigh flexed. Vomiting is frequent, and has been known to become stercoraceous (Whipple and Nash).[3] Syncope, pallor and sweating, with a rapid and feeble pulse, are common symptoms. In nearly all cases the onset of severe

[1] *Tr. Path. Soc. Lond.*, 1892, xliii. 51.

[2] *Med.-Chir. Tr.*, 1892, lxxv. 253. [3] *Brit. M. J.*, 1891, i. 724.

symptoms has been sudden, an important diagnostic point. In a few cases, however, the onset symptoms have not been severe, and the patients have then been able to walk and even work for a day or two. Later, in these cases, the symptoms became more severe, and compelled the patients to take to their beds. In another group of cases the symptoms have quickly subsided, but the patients have remained liable to recurrences. In Van der Poel's case, for example,[1] the patient, a medical man, 25 years of age, had had many such attacks, usually during the day, but occasionally coming on at night during sleep. Sometimes he had two attacks in one day, sometimes months passed without an attack. The patient, after a time, discovered that the cause of his trouble was torsion of the testicle, and that he could relieve himself by rotating his testicle in the opposite direction. Gifford Nash[2] has recorded a case in which he successfully relieved a youth with torsion by untwisting the cord. The symptoms had lasted an hour and a quarter. A tender swelling of the cord itself above the swollen testis helped Nash in making the diagnosis. Subsequently the affected testicle became smaller than the other.

Diagnosis.—Hitherto a correct diagnosis of torsion of the cord has been rarely made. The confusion has most often been with incarcerated or strangled hernia. But in torsion intestinal obstruction is not absolute, and vomiting not as a rule persistent. It is in the cases of torsion of the imperfectly-descended testicle that confusion with hernia is most likely to occur. The mistake could hardly be made if the testicle were fully descended, unless an irreducible hernia was present at the same time, for otherwise the inguinal canal would be free. If a strangulated hernia of the partial variety (Richter's) occurred in association with an undescended testicle, the difficulties in diagnosis would be very great. Dowden[3] points out that in strangulated hernia the swelling and pain begin almost simultaneously, whereas in torsion the swelling follows the pain.

When the cord of an undescended testicle is twisted the condition has also to be distinguished from the other disorders

[1] *Med. Rec.*, 1895, xlvii. 737. [2] *Brit. M. J.*, 1893, i. 742.
[3] *Scottish M. & S. J.*, 1901, ix. 229.

which may affect such a testicle, viz. from the so-called strangulation of the undescended testis, and from inguinal orchitis. The first of these, strangulation of the undescended testicle, produced, it has been supposed, by the pressure of the pillars of the external abdominal ring upon the testicle suddenly extruded between them, or upon the cord of a testicle so extruded, cannot be distinguished clinically from torsion. Godlee and de Quervain[1] have reported cases of strangulation of this kind without torsion. The condition seems to be an extremely rare one, and it is highly probable that in most of the cases in which the diagnosis of strangulation has been made the real condition present, though unrecognised, was torsion of the cord. It is equally probable that many cases which have been regarded as examples of inguinal orchitis have been really examples of torsion, though naturally a testicle in the groin is not exempt from the forms of inflammation which attack the fully-descended organ, *e.g.* gonorrhœal or traumatic orchitis.

When the cord of a fully-descended testicle has become twisted the condition has to be distinguished from epididymitis, epididymo-orchitis, or orchitis of urethral or other origin, suppurative inflammation of the tunica vaginalis, tubercular disease of the testicle and ruptured varicocele, and acute hemorrhagic infarction of the testicle. The difficulty in these scrotal cases in the past has been no doubt chiefly due to the fact that torsion has been regarded as an affection of the imperfectly-descended testicle only. The local symptoms are not pathognomonic, but the sudden onset of the pain, the rapid swelling of the testicle and its coverings, and the associated abdominal symptoms and collapse should enable one to recognise the disease if its possible existence is borne in mind.

The condition of acute hemorrhagic infarction of the testicle, however, resembles torsion very closely in its clinical course, and could hardly be distinguished. The affection was first described by Volkmann.[2] It seems not unlikely that the case Volkmann described was really one of torsion. But there are four other cases, recorded respectively by Niemann,[3]

[1] Quoted by Lapointe, *Op. cit.*, p. 103.

[2] *Berl. klin. Wchnschr.*, 1877, xiv. 769. [3] *Breslau. aertl. Ztschr.*, 1884, vi. 13.

Englisch,[1] Mayer,[2] and Mauclaire,[3] which show that hemorrhagic infarction of the testicle may occur without either torsion or strangulation at the external inguinal ring. In all these cases the affected testicle was fully descended. The initial symptoms were less abrupt and severe than those of torsion, and this fact might be a help in diagnosis.

Prognosis.—No case of torsion of the spermatic cord yet recorded has ended fatally. The testicle itself has, in at least three cases, been saved by timely detorsion. Two cases of this kind have been mentioned above, and a third is recorded by Perry.[4] In all the other cases the testicle has either been removed by castration, or has sloughed, or has atrophied. As pointed out by Lapointe, there are eleven cases on record in which the cord was untwisted by open operation and the testicle not removed. In one additional case the testicle was left to its fate without untwisting the cord by Langton.[5] In that case, and in six of those in which the cord was untwisted, the testicle was subsequently eliminated in a septic state. The records of three only of the remaining five report the ultimate fate of the testicle. The fate was atrophy. They are the cases of Von Meyer,[6] Bryant,[7] and Defontaine.[8] The question arises, Why did the testicles slough in the other six cases? It is significant that in all there had been an operation. No testicle with torsion of the cord has been spontaneously eliminated by septic processes without a previous operation. The fate of a testicle which has undergone hemorrhagic infarction from torsion would seem then to be simple atrophy, partial or complete. If gangrene ensues it is the result of superadded infection. The path of infection may be either the wound inflicted by the surgeon or possibly the blood stream, the contamination of the blood having taken place elsewhere in the body.

[1] *Wien. klin. Wchnschr.*, 1893, vi. 603. [2] *Ann. Surg.*, 1897, xxvi. 666.

[3] *Ann. d. Mal. d. Org. génito-urin.*, 1902, p. 818.

[4] *Birmingh. M. Rev.*, 1898, xliii. 279.

[5] *St. Barth. Hosp. Rep.*, 1881, xvii. 188.

[6] *Deutsche med. Wchnschr.*, 1891, xvii 800

[7] *Med.-Chir. Tr.*, 1892, lxxv. 247. [8] *Arch. prov. de Chir.*, 1894, iii. 141.

Treatment.—The methods of treatment available for torsion are as follows:—

(1) Detorsion by taxis.
(2) Detorsion through an incision.
(3) Detorsion, with fixation of the testis in the scrotum (orchidopexy), including transplantation if the testis is imperfectly descended.
(4) Castration, immediate or secondary.

Detorsion without fixation of the testicle is not ideal treatment, for it leaves the patient liable to a recurrence of the trouble. Detorsion with fixation of the testicle in the scrotum in such a way that recurrence will be rendered impossible is the method of choice if it can be satisfactorily carried out. Immediate castration is required, first, if the testicle has become infected and is gangrenous; and, secondly, if detorsion and orchidopexy are found impracticable or have been tried and failed. If a non-infected hemorrhagic testicle is left after detorsion and the wound remains aseptic, a portion of the gland at least may survive to be of use in the economy. If, however, the wound becomes septic, gangrene of the testicle will almost certainly follow and secondary castration become necessary.

CASE OF MESENTERIC CYST.[1]

BY

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THE subject of mesenteric cyst is one of considerable interest to all embryologists and abdominal surgeons, and the specimen that was removed in this case was one of those rare forms that have a cyst wall more than suggestive of the wall of part of the alimentary canal.

At present the belief is[2] that excepting hydatids and cysts

[1] Read at the Bristol Medico-Chirurgical Society, November 9th, 1904.

[2] Baumann, *Lancet*, 1904, i. 1272; Dowd, *Ann. Surg.*, 1900, xxxii. 515; J. Fawcett, *Tr. Path. Soc. Lond.*, 1902, liii. 406.

in malignant growths all mesenteric cysts are embryonic in origin. Rokitansky as far back as 1842 recognised the existence of such cysts, and believed them to be dilatations of lymph spaces. Dowd points out that included between the layers of the mesentery are found remnants of the Müllerian duct, of the Wolffian bodies, and of the vitelline duct, and suggests that the appearance of mesenteric cysts lies in the development of these cysts from such remnants. Their contents are a matter of chance, and according to what they contain they are named serous, chylous, sanguineous, or lymphatic. There is, however, one other form which has a wall resembling in structure the wall of the alimentary tube. These cysts probably owe their existence to their being originally diverticula or sequestrations from the intestine early shut off. Such is the case in the instance of the patient whose history I am now bringing forward.

C. B., æt. 15, was admitted at the Infirmary on August 31st, 1904. The history dates from when he was an infant in arms, since when he has always been liable to wind colic. His general health was fair, but often he had to get a certificate from his doctor to enable him to stay at home from school. The attacks of abdominal pain and swelling have been occurring irregularly about every two months, sometimes with and sometimes without diarrhœa. For the last ten days he has been kept in bed and has had six violent attacks with diarrhœa, five or six motions a day. He states graphically, "The lump comes up with pain that makes me groan; the lump goes, and then the pain passes off." The boy is pallid but not unhealthy looking. He has a small hare lip and does not want it touched. Heart and lungs natural. Abdomen looks quite natural till a contraction comes on, then a swelling about the size and shape of a stomach appears with peristalsis, but situated below the navel. It comes suddenly, is firm and not tender. Tickling the parietes will produce it. The parietes are pushed forward by it. It is resonant, and after staying some minutes or so it disappears with a gurgle. Urine 1022, faint trace of albumen. He was watched for a few days, and had two longer attacks than usual. Sometimes the swelling came without the pain. No diagnosis was made as to the cause; he was believed to be suffering from some unusual form of chronic intestinal obstruction. Operation on October 5th. I made a three-inch incision below the umbilicus; a huge mass was found pushing forward the bowel. The portion of bowel most pushed forward was, I believe, the transverse colon. It looked like a huge intussusception or a

hernia of the stomach between the layers of the mesocolon. In fact, when I had incised the peritoneum over it, it was so like a stomach that I prolonged my skin incision to prove that the stomach was in its normal place. I opened the cyst and about 15 oz. of fluid was let out. I then proceeded to free it from its attachments, stripping off the peritoneum with considerable difficulty and hemorrhage. A pedicle was found at the vertebral attachment and tied off, and after all bleeding points had been attended to the abdomen was closed without drainage. Transfusion was performed during the operation, and on removal to his bed the boy was in a very collapsed condition. The cyst looked smooth on its outer surface, and was filled with glairy, dark blood-stained fluid. The inner surface was rough and papillated, and felt soft and sticky like a mucous membrane. Except for an attack of indigestion on the sixth day from drinking milk he made an uninterrupted recovery, and is now well and has had none of the old pain. An interesting point in his convalescence was that his pulse was never under 90 even when he was kept quite still. If he moved about his pulse was 120–130. He was not breathless or weak.

PATHOLOGICAL REPORT ON SECTIONS.

By J. J. S. Lucas, M.B. Lond.

Sections were cut from two different parts of the specimen, including the whole of the cyst wall. They were exactly similar in appearance. They resemble very closely the duodenum in structure. Internally are long glands lined with cylindrical epithelium and containing mucous cells. Their blind ends are racemose in character, and spread out into the muscularis mucosæ like Brunner's duodenal glands. Outside this are two muscular coats separated by loose areolar tissue. The inner coat is cut obliquely and probably represents a circular coat, while the outer is cut transversely and is continuous over the whole section and represents a longitudinal coat. The conclusion is that the tumour is of the structure of the small intestine.

Progress of the Medical Sciences.

MEDICINE.

Lumbar Puncture and Cyto-diagnosis of Cerebro-Spinal Fluid.—Donath's[1] experiences of lumbar puncture in 98 cases of meningitis, brain abscess and tumour correspond with those of other authors. He points out that only so much fluid should

[1] *Wien. med. Wchnschr*, 1903, liii. 49.

be withdrawn as will flow freely, and that it should never be aspirated. The little operation should, of course, be done under antiseptic precautions. The normal fluid should be clear as crystal, and the slightest turbidity is pathological. As a therapeutic measure, he found lumbar puncture of value in meningitis and brain abscess, and in relieving the gastric crises and lightning pains of tabes. In 19 cases of epilepsy, although of course no cure was effected, the fits were fewer and sleep and the general condition improved.

Rhodes[1] also claims for lumbar puncture relief of pain, and of coma or loss of consciousness due to increased intracranial pressure; in one case of basal meningitis it aided recovery. Both authors emphasise its usefulness in diagnosis in difficult cases. This point will be dealt with immediately.

Other authors attribute both alleviation of symptoms and more lasting improvement to lumbar puncture in many cases of nervous disease.

Babinski[2] states that lumbar puncture relieves, or even cures, the symptoms of Menière's disease, and may favourably influence deafness and tinnitus aurium; but its field of usefulness in the latter affection is a limited one. It is most likely to be effectual in cases of pure labyrinthine disease.

Legrain and Guiard[3] report a case in which very severe headaches in the course of Bright's disease were relieved by lumbar puncture, which was done 7 times.

Cyto-diagnosis.—Much attention has lately been directed to the character of the cells present in the cerebro-spinal fluid in various diseases as an aid to diagnosis. The method of procedure is to centrifugalise for 15 minutes the fluid obtained by lumbar puncture, to make a cover-glass film from the deposit, dry it at 37° C., fix it with alcohol and ether, and stain with methylene blue or hæmatoxylin and eosin (or Jenner's stain may be used, which does not require fixation of the film). The normal cerebro-spinal fluid is almost entirely free from cells; those present from pathological processes may be red blood cells, polymorphonuclear leucocytes, which may be neutrophil, eosinophil or basophil, and lymphocytes in varying proportions. In cerebro-spinal meningitis there is a marked leucocytosis (polymorphonuclear cells),[4] in tuberculous meningitis a lymphocytosis, and in all chronic diseases of the central nervous system with affection of the meninges a pronounced lymphocytosis.

In cases of difficult diagnosis Chauffard and Boidin,[5] whose paper deals with 140 cases and 223 separate punctures, found the procedure of special value; for instance, in some cases

[1] *Brit. M. J.*, 1903, ii. 73.

[2] *Ann. d. Mal. de l'Oreille et du Larynx*, 1904, xxx. 101; abstract in *Neurol. Centralbl.*, 1904, xxiii. 863.

[3] *Progrès méd.*, 1903, 3e. sér. xviii. 281.

[4] Demange, *Inaug. Diss.*, Paris, quoted in *Schmidt's Jahrb.*, 1904, cclxxxiii. 239.

[5] *Gaz. d. Hôp.*, 1904, lxxvii. 725.

of acute infectious fevers, in spite of pronounced meningeal symptoms, meningitis could be excluded by this means.

To take now the diseases in which there is decided lymphocytosis.

In **Tabes Dorsalis** a more or less pronounced lymphocytosis seems to be the rule. A number of cases were brought forward by various observers at the Société de Neurologie of Paris,[1] and with others that I have collected from various sources form a total of 98 cases; lymphocytosis was marked in 85, absent in 7, and slight in 4: these last and one of the negative results were cases of very old standing. Drs. Marie and Crouzon in 20 cases were not, however, able to trace any connection between the degree of lymphocytosis and the severity of the other symptoms.

In **General Paralysis** the results are equally striking. Of 28 cases reported by different writers 25 showed lymphocytosis.

Remembering the undoubted connection between these diseases and syphilis, the question suggests itself as to whether the lymphocytosis is due to the latter. In this connection Ravaut[2] states that in many cases of syphilis lymphocytosis of the cerebro-spinal fluid is present during the whole course of the disease, and considers that this shows a reaction of the meninges at a time when the cerebro-spinal lesions of syphilis are absent. Other observers have also reported a pronounced lymphocytosis in various syphilitic affections of the nervous system. Niedner and Mamlock[3] found in 6 hemiplegics, lymphocytosis in 4, in whom the hemiplegia was due to syphilis. In these 4 cases syphilis, and not hemiplegia, must be regarded as the cause of the lymphocytosis; but they consider that this does not hold good for tabes, for 3 of their cases gave a positive result in the absence of any evidence of syphilis. Babinski[4] states that lymphocytosis is not pathognomonic of a syphilitic meningitis in tabes dorsalis.

Niedner and Mamlock[5] conclude that lymphocytosis results from severe and long-lasting irritation of the central nervous system, such irritants on the one hand being intoxications, syphilis, uræmia, tetanus, &c., and on the other of a mechanical nature, tumours, &c. They do not look upon meningeal irritation as the most essential factor in lymphocytosis, and conclude with regard to tabes that seeing that lymphocytosis is frequent in syphilis, and may be absent in tabes, a positive or negative result of the examination of the cerebro-spinal fluid would not settle the diagnosis of a doubtful case.

Tuberculous Meningitis. — Chauffard and Boidin[6] in 13 cases obtained a positive result in all, and in 9 tubercle bacilli

[1] *Neurol. Centralbl.*, 1904, xxiii. 873 *et seq.*

[2] *Lyon méd.*, 1903; abstract in *Jahresb. d. Neurol. u. Psychiat.*, 1904, i. 532.

[3] *Ztschr. f. klin. Med.*, 1904, liv. heft 1 u. 2; abstract in *Neurol. Centralbl.*, 1904, xxiii. 863.

[4] *Neurol. Centralbl.*, 1904, xxiii. 874. [5] *Loc. cit.* [6] *Loc. cit.*

were also found in the cerebro-spinal fluid. F. and A. Torday[1] found in 10 cases pronounced lymphocytosis in all; there was also a slighter increase of polynuclear cells. In 5 cases they discovered tubercle bacilli in the fluid. Variot and Percheron[2] emphasise the value of this lymphocytosis in the early diagnosis of the disease; but F. and A. Torday and other observers say that taken alone it may lead to error, and must be considered in connection with the other symptoms.

Heischhorn,[3] as the result of experiment, has found that guinea-pigs, injected with the cerebro-spinal fluid of a person suffering from tuberculous meningitis, always become tuberculous, but when injected with this fluid from cases of tuberculosis of other organs are not infected.

Orglmeister,[4] from observation of 15 cases of tuberculous meningitis, says that clotting of the cerebro-spinal fluid, or the presence of flakes of fibrin and of leucocytes in it, are not sufficient without the demonstration of tubercle bacilli for the diagnosis of the disease from the characters of the fluid alone.

In a case in which there were numerous tuberculous foci in the cerebellum, one of which was situated on the surface and gave rise to a local meningitis, Nobecourt and Voisin[5] found a lymphocytosis and tubercle bacilli in the cerebro-spinal fluid.

Pernet[6] reports 86 cases of meningitis. Most were tuberculous in nature, only 7 being acute and non-tuberculous. Lumbar puncture was done 53 times, and gave a lymphocytosis for most tuberculous, and a leucocytosis for all the acute cases. In these acute cases the cause of the meningitis was in some Weichselbaum's meningococcus, in others the pneumococcus and Pfeiffer's bacillus.

Other diseases in which lymphocytosis was found on examination of the cerebro-spinal fluid are herpes zoster (to a very marked degree), parotitis, acute anterior poliomyelitis (one case), and urticaria. In disseminate sclerosis J. Fraenkel[7] reports a pronounced **leucocytosis** in 6 out of 7 cases. Most observers say there is no lymphocytosis in tumours of the brain, but it has been found once or twice. A negative result has been obtained in epilepsy, softening of brain, hysterical nervous affections, aural vertigo, poliomyelitis, syringomyelia, old-standing hemiplegia, multiple neuritis, and functional neuroses.

Accompanying lymphocytosis, but independent of it in origin, Guillain and Paraut[8] have found albumin in the cerebro-spinal fluid in 36 patients suffering from general

[1] Abstract in *Jahresb. d. Neurol. u. Psychiat.*, 1904, i. 532.
[2] *Ibid.*, p. 531. [3] *Thèse de Paris*, 1903; *Ibid.*, p. 531.
[4] *Deutsches Arch. f. klin. Med.*, Bd. lxxvi. 142.
[5] *Rev. mens. d. Mal. de l'Enf.*, 1903, xxi.; abstract in *Neurol. Centralbl.*, 1904, xxiii. 31.
[6] *Thèse de Paris*; abstract in *Jahresb. d. Neurol. u. Psychiat.*, 1904, i. 495.
[7] *Med. Rec.*, 1904, lxv. 125. [8] *Rev. de Neurol.*, 1903, 406.

paralysis, disseminate sclerosis, chronic alcoholism, dementia præcox, epilepsy, and melancholia. In the general paralytics there was an increase in the globulins and a decrease in the serum albumin.

With regard to the **colour of the fluid** withdrawn by lumbar puncture, Professor Bard[1] states that centrifugalised cerebro-spinal fluid containing blood shows, if the hemorrhage has just occurred, a clear, colourless fluid above the deposit; if the hemorrhage is older this is rosy red, and the presence of hæmoglobin can be demonstrated; if several weeks have elapsed the fluid is a clear yellow. These appearances he attributes to a hæmolytic action by the pathological cerebro-spinal fluid on the red blood corpuscles.

Mathieu[2] also attaches diagnostic significance to the colour of the cerebro-spinal fluid in hemorrhages. If the fluid is brown or greenish brown, a pathological process is present; if it is mixed with blood, this may be either due to the puncture or to hemorrhage from the brain or cord. If after centrifugalisation the fluid is colourless, the blood is of artificial origin (puncture); if the fluid is, however, brown or greenish brown it is pathological.

Duprè and Sébilleau[3] have been able in a case of cerebral hemorrhage to diagnose hemorrhage into the ventricle from the presence of red blood cells in the cerebro-spinal fluid. In a similar case Sabrazès and Muratet[4] found in the centrifugalised fluid 54 per cent. large mononuclear cells, many of which contained hæmatin.

Mongeur[5] has found very frequently a slight increase of the **reflexes after lumbar puncture** in various diseases of the nervous system.

Although the little procedure of lumbar puncture is in the great majority of cases simple and harmless enough occasionally **disagreeable symptoms and even death** have been known to follow it.

The commonest symptoms are pains in the head, vomiting, or nausea, and faintness. These symptoms are mostly temporary and soon pass off; they are attributed by Donath[6] to hyperæmia of the meninges and cortex cerebri, due to a rapid fall of intracranial pressure.

Ballet and Delherm[7] say that such symptoms are most often met with where the cerebro-spinal fluid is normal. They occur in only a very small proportion of the cases examined.

Masing[8] reports a case in which death followed 15 hours after a lumbar puncture had been done, and was due to a large hemorrhage in a gliosarcoma of the temporal lobe; he attributes

[1] *Semaine mèd.*, 1903, No. 41; abstract in *Neurol. Centralbl.*, 1904, xxiii. 860.
[2] Abstract in *Jahresb. d. Neurol. u. Psychiat.*, 1904, i. 497.
[3] *Neurol. Centralbl.*, 1904, xxiii. 874. [4] *Compt. rend. Soc. de Biol.*, lv. 1435.
[5] *Ibid.*, 1561; abstract in *Jahresb. d. Neurol. u. Psychiat.*, 1904, i. 387.
[6] *Loc. cit.* [7] *Soc. de Neurol. de Paris, loc. cit.*
[8] *St. Petersb. med. Wchnschr*, 1904, xxix. 1; abstract in *Schmidt's Jahrb.*, 1904, cclxxxiii. 58.

the hemorrhage to a rapid lowering of the intracranial pressure. He is of opinion that lumbar puncture is worthless and dangerous in brain tumours.

J. Fraenkel's[1] view is—he had a case of cerebellar tumour in which collapse occurred after lumbar puncture—that it is in cases of disease in the posterior fossa, and especially of the cerebellum, that there is danger in lumbar puncture, as these are the cases in which death has followed it. He therefore advises that it should not be done in such cases.

J. MICHELL CLARKE.

SURGERY.

Mesenteric embolism and thrombosis, though comparatively infrequent, is of great importance to the abdominal surgeon on account of the close resemblance of the symptoms to those of intestinal obstruction. Drs. Jackson, Porter and Quinby,[2] by an analysis of the records of 214 cases, have done much to elucidate this difficult subject.

Virchow described the affection pathologically in 1847, Litten wrote on its clinical aspects in 1875, and since then various experiments have been made by Cohnheim, Cohn, and others, demonstrating the results of the stoppage of the blood supply of the intestines.

Considering the richness of the vasular anastomoses of the intestine, it is noteworthy that closure of the mesenteric vessels does not, as a rule, call forth a competent collateral circulation, as is usually the case in other parts of the body. Various theories have been propounded to explain this fact, but perhaps the most satisfactory is that of Faber,[3] who says the infarction is due to back pressure of blood in the portal system, which overcomes and is greater than the pressure in the anastomosing vessels. The reason why the inferior mesenteric artery does not take up the work of the closed superior mesenteric is due to the fact of its being a smaller vessel, and unable therefore to assume the functions of a larger one. Further, after closure of the superior mesenteric artery, the pressure in the superior mesenteric vein necessarily sinks to *nil* immediately. The pressure in the portal system is thus lowered, making the flow from the inferior mesenteric vein easier; and it is thus easier for blood in the inferior mesenteric artery to flow by its natural channel. Whether the flow is interfered with in the inferior mesenteric artery alone, or the vein alone or both simultaneously, the results are identically the same—first necrosis, second gangrene, third hemorrhagic infarction, and fourth abscess formation.

The **pathological evidence** depends largely on the duration of the process. In most cases there is free fluid in the general

[1] *Loc. cit.* [2] *J. Am. M. Ass.*, 1904, xlii. 1469; xliii 25, 110, 183.
[3] *Deutsches Arch. f. klin. Med.*, xvi. 527.

peritoneal cavity, often blood-stained, and usually in sufficient amount to be demonstrable during life. In more than half the cases the infarcted area has a well-marked line of demarcation, but it is less marked in some cases where the collateral circulation has been partly developed. The contents of the intestine are bloody in most cases. Ulcerations of the intestinal mucosa are not uncommon. The mesentery is often thickened and œdematous, and sometimes the blood forms so considerable a tumour between its layers that it can be felt on palpation. The mesenteric glands and lymphatic tissue are often swollen. In cases of venous closure, as opposed to embolus of the mesenteric arteries, the large intestine is only seldom affected, owing, doubtless, to the more abundant anastomoses between the inferior mesenteric vein and the inferior vena cava with the hemorrhoidal vein.

As regards the **etiology,** we find that all those diseases which lead to the formation of thrombi whence emboli may arise are of direct influence as causes of mesenteric occlusion. Endocarditis, atheroma of the aorta, and arterio-sclerosis, especially of the mesenteric arteries, are of the greatest importance. In the case of venous thrombosis all conditions causing stasis in the portal system play a causative rôle. The thrombosis may be primary and ascending, or it may be secondary to a process beginning higher up—both classes occur. All intestinal changes which allow penetration of bacteria into the vessels are of importance in the causation of the primary thrombosis. Such are the severe forms of enteritis, surgical infections, phlebitis of the lower extremities, and various cachexias such as those due to cancer, malaria, sepsis, typhoid fever, and appendicitis. Secondary venous thrombosis follows cirrhosis and syphilis of the liver, pylephlebitis and processes at the liver hilum, which by pressure, or the formation of adhesions, cause portal stasis.

The **symptoms** may be divided into two groups—acute and chronic. The first group is by far the larger, and is composed of cases of sudden onset of colicky abdominal pain, followed by nausea and vomiting and diarrhœa, both of which are often bloody, or the case resembles one of obstinate intestinal obstruction of the paralytic type. Often not even flatus is passed, the abdomen rapidly becomes distended with gas, peristalsis is absent, and death occurs in a few hours or days. The second and smaller group is formed by cases of insidious onset, and chronic, sometimes remitting symptoms, by cases having no symptoms referable to the abdomen during life, and by those where spontaneous cure resulted. There appears to be no difference as regards acuteness of onset, whether the condition is one of arterial embolism or venous thrombosis, so that the commonly-accepted view that the acute cases are dependent on embolism and the chronic ones upon thrombosis is not correct. The cases are about twice as common in men as in women, and over one-half of them occur between 30 and 60 years of age.

As regards **diagnosis**, Gerhardt considers the following signs as necessary to a diagnosis of this affection:—1. The presence of a source for an embolus. 2. Copious intestinal hemorrhages, not to be explained by disease of the wall of the bowel, or by hindrance to the portal circulation. 3. A rapid and marked fall of temperature. 4. Colicky (often severe) pains in the abdomen. 5. Later, distension of the abdomen and the presence of free fluid. 6. The simultaneous or previous occurrences of embolism in other parts. 7. The occasional presence of a tumour in the abdomen due to the infiltration of the mesentery by blood. The existence of some of these signs is necessary for the making of a diagnosis, though it is rare to find them all present in any one case. The conditions most often confused with these cases of intestinal paralysis are those where the obstruction is due to a mechanical hindrance. These are intussusception, volvulus, strangulation by bands, or obstruction from gallstones or cancer. It is also necessary to exclude all those diseases which may cause blood in the stools or vomit, such as gastric or duodenal ulcer, and diseases of the heart and liver. In the great majority of cases it will be found that a diagnosis of intestinal obstruction is made, and this seems as near as we can get at present.

The **prognosis** is bad, and the mortality is given as 94 per cent. Even in the more chronic cases the outlook is unfavourable, because of the hindrance to the formation of an efficient collateral circulation.

The only rational **treatment** is that of exploratory laparotomy in every case where the patient's general condition will warrant it, and as soon as ever a probable diagnosis has been made. The gangrenous part should be resected, but so far only four cases (8 per cent.) have recovered. The authors think this high mortality may be due to faulty technique. In many cases it is impossible, even with good demarcation lines, to be sure that the gangrene has reached its limits, and therefore it seems unwise that resection should be followed by immediate anastomosis. Moreover, this procedure exposes the patient to an operation which is too long and involves too much trauma. They therefore advise that the involved gut should be brought well out of the wound, with liberal sound margins left at either end, and after resection that the open ends should be fixed in the wound well walled off with gauze tampons. If peritonitis is present a speedy flushing out of the cavity with hot saline solution is advisable, and adds but little to the danger of the operation. With both ends of the intestine thus open the distension can be relieved and the intestine watched for signs of further gangrenous involvement. This method, the details of which must vary with the preference of the individual surgeon, appears to put the patient in the best position for recovery if such be possible.

JAMES SWAIN.

DERMATOLOGY.

In the section for Dermatology at the Oxford meetings a most interesting comparison was drawn by Dr. J. H. Sequeira[1] between the old and new methods of treatment of **lupus vulgaris** and certain other skin diseases. So much has been written upon this subject, and by so many different authors, that to obtain the scientific judgment of so experienced and sound an observer must prove a great gain to all who are following with interest the recent work in these directions. The comparison is made by putting to each method the questions: (1) Is it curative? (2) What will be the amount of disfigurement?

Excision in early cases, where practicable, is undoubtedly the most radical, but is not always curative (48 per cent., Lang); but great disfigurement must ensue upon the ablation of the large tracts necessary for the relief of most of the cases which appear for treatment. It is practicable mainly for the trunk and extremities.

Scraping in the main has proved most unsatisfactory. The nodules are removed, but not the infected skin surrounding them. The lymphatic spaces are torn open in a ruthless way, and the curettes are plunged from one nodule to another, and it is not surprising that spreading of the disease should follow operation. Scraping should be limited to the removal of exuberant granulations, and possibly the destruction of nodules embedded in scar tissue. It should always be followed by the application of caustics or cautery. The scars left are very unsightly.

It is hard to limit the deep action necessary for the destruction of nodules with caustics or cautery; but their use is helpful in fungating granulations in the nose and about the mouth. Sequeira has found pyrogallic acid and permanganate of potash useful in thick warty masses as well as in fungating granulations. Their application is painful, and not deep enough for deep nodules.

Scarification produces a beautiful scar, but is tedious and superficial. The Finsen treatment is undoubtedly the best method of treatment for lupus of the skin of the face, though there are certain limitations. There is a direct sterilisation of the tissues, with a minimum of disfigurement. At the margin sterilisation takes place without scarring. The Finsen and the newer Finsen-Reyn lamps are the only instruments which penetrate sufficiently to reach the deeper nodules. With the Lortet lamp the sittings must last for an hour as a rule to ensure penetration, and then only superficial lupus can be cured. Concentration of light is important.

The idea of sensitising the tissue to light is a good one. Sequeira has tried some cases with 0.2 per cent. erythrosin

[1] *Brit. M. J.*, 1904, ii. 982.

(Dreyer) The reaction is intense, but there is severe pain, and further observations are necessary.

Mucous membranes require other methods of treatment. Ulcerous surfaces need preliminary treatment, and thick warty masses must be removed by pyrogallic or other caustic. Some very extensive cases have proved intractable. Results since May, 1900:—

COMPLETED CASES.

Patients known to be well to date—	
Discharged in 1900–01	49
,, ,, 1902	60
,, ,, 1903	69
,, ,, 1904 (half year)	38
	216
Patients discharged, but no recent information ...	8
Died of phthisis, 2; general tuberculosis, 1	3
Incurable after prolonged treatment by light	11
	238

INCOMPLETE CASES.

Treatment suspended—under observation	43
Patients left for treatment elsewhere	22
,, ,, for other causes (domestic, &c.)	23
Treatment incomplete (in a large number skin free, mucous membranes lesions requiring treatment)	213
	539

The X-rays are of immense value in the treatment of lupus vulgaris. Large areas can be treated; ulcerated parts heal rapidly, but nodules are left isolated, which require other methods of treatment. The scar produced may be excellent; but on the other hand it may be covered with telangiectases, which are disfiguring. The recent report of cases of epithelioma produced upon the hands of X-ray workers makes it possible that X-ray scars may become malignant under prolonged treatment. Sequeira clears up ulcerating forms with X-rays, and finishes with light. There are frequent relapses. The results of the light alone are greatly superior to that of X-rays where it is applicable.

High-frequency treatment is useful for ulcerated surfaces, but not for nodules. He sums up his choice of measures as follows:—

For moderate cases of lupus of the skin of the face Finsen treatment, preceded by X-rays if the surface is ulcerated, preceded by pyrogallic acid or permanganate of potash if warty or fungating.

For lupus of mucous membranes X-rays; if fungating, actual cautery followed by X-rays.

For dry areas on the limbs and trunk, excision and, if necessary and possible, grafting; if ulcerated, X-rays.

For wide dissemination probably the best results are to be expected from tuberculin injections, as recently demonstrated by Dr. Wright.

Rodent Ulcer.—Small ulcers may be excised or treated with radium. Ulcerations treated with X-rays heal; raised edges may be scraped away, and then treated with X-rays. Radium is occasionally successful where X-rays fail. Epithelioma may develop on rodent; but this may be due to natural causes, and not necessarily to the X-rays.

With regard to epithelioma his experience has been discouraging. Superficial epitheliomata have been removed, but glandular masses are not affected. Radium has removed small warty epitheliomata which develop upon old cases of the red variety of lupus.

Mycosis Fungoides.—Further cases of this disease have been found amenable to treatment by means of the X-rays.

Jamieson[1] records a case of the erythro-dermic stage which was relieved entirely by this method. An attack of influenza brought out lesions again in a part which had not been rayed, and these were relieved in their turn by the same agency. All trace of the disease, with its glandular enlargement, had disappeared, leaving only slightly rough skin on abdomen and thighs. The microscopic findings from portions removed showed the typical granulomata, and others the complete removal thereof.

Carrier[2] has also been successful with a case, the X-rays removing the tumours and causing a cessation of the spread. The treatment lasted daily for five minutes at a time from August 17th to November 10th, and the result was, there were no induration, scaling, erythema, tumours, or pruritus.

Alopecia Areata.—L. Jacquet[3] has found it impossible to inoculate the disease in six persons, one of whom had previously suffered from it and might therefore have proved susceptible. The inoculations were made by collecting on a moistened tampon of cotton-wool the supposed contagious products obtained by scraping and vigorous friction of the areas and their borders, which was then rubbed into the parts of the scalp preferred by the disease.

Thirty of the writer's temporo-parietal hair follicles were catheterised with an electrolysis needle charged with the products of the scraping of another case. One hundred inoculations in all were conducted, but not a hair was lost, the results being absolutely *nil*.

Jacquet has also drawn attention to the frequency with which disturbances in dentition are associated with bald areas,

[1] *Brit. J. Dermat.*, 1904, xvi. 125.
[2] *J. Cutan. Dis.*, 1904, ii. 73; abstract in *Brit. M. J.*, 1904, i. Epitome, p. 59.
[3] *Presse méd.*, 1903, ii. 857; abstract in *Brit. J. Dermat.*, 1904, xvi. 195.

and Whitfield[1] has lately found that some cases of alopecia areata proved intractable to treatment until the eyesight had been corrected and eyestrain removed.

Kromayer[2] has treated six cases of extensive and severe alopecia areata which had resisted such treatment as mercury spirit, chrysarobin ointment, or eugallol, with the rays from an iron-electrode lamp. Exposing for four minutes at 4 c.m. distance the whole area was treated for fifteen sittings. The reactions were good, and in one case were kept up by these means for fourteen days, and then left for a while and repeated later. This was from February 25th to May 12th. By June the whole of the hair had returned luxuriantly. Of the other five cases, one was cured after one cycle, one after three cycles, and one after six, and the last after one. In one case recurrence occurred in six months, but the renewal of the treatment was successful.

Megalerythema Epidemicum, or Erythema Infectiosum.—Under this name Plachte[3] describes a disease characterised by rounded patches of erythema raised and bright red in colour, with edges not sharply defined, without pain or itching, and showing an infectious tendency among children. The erythema is not persistent, but tends to fade in the centre of the initial patches, and to spread to other parts of the body. There is very little if any desquamation. In the cases he brings forward three children in one family suffered, aged 7 and 3 (twins). The mucous membranes were not involved and there was no pyrexia, but there were slight pains in the limbs. The general health appeared to be affected in no other way. The rash appeared first on the face and later on the body, tending here to become confluent. The disease resembles erythema multiforme, but can be distinguished from it by the following points of diagnosis:—

(1) E-multiforme affects the whole body simultaneously, whereas megalerythema affects certain positions in a definite order; (2) E-multiforme does not occur as an epidemic; (3) the spots of megalerythema are circular and do not present the variety of E-multiforme; (4) the duration of E-multiforme is 2–6 weeks, that of megalerythema nine days.

Other observers have reported similar cases, the types of which correspond to Plachte's case, though there are variations such as itching, sore throat, and initial rise of temperature.

Purpura.—Henri Grenet[4] considers that the nervous system plays a very decided part in every case of purpura. He records six cases of exanthematous purpura which showed nervous reactions. Three patients presented simultaneously albumin and leucocytosis in the cerebro-spinal fluid drawn by means of

[1] *Lancet*, 1904, i. 651.

[2] *Deutsche med. Wchnschr.*, 1904, xxx. 1127; abstract in *Brit. M. J.*, 1904 ii. Epitome, p. 39.

[3] *Berl. klin. Wchnschr.*, 1904, xli. 223.

[4] *Gaz. d. Hôp.*, 1904, lxxvii. 868.

lumbar puncture. In one case the purpura alternated with an attack of zona. In another herpes of head and eyes rapidly ensued on the purpura dying away; and in still another, a child of a hæmophilic mother, there was lymphocytosis and a thick cloud of albumin in the cerebro-spinal fluid. On improvement the albumin persisted, but was explained four days later by an attack of herpes on the face. On the subsidence of this the albumin was reduced to a faint trace, and the lymphocytes nearly disappeared. The writer considers that this contravenes M. Leredde's belief that the purpura is solely due to the action of toxins circulating in the blood upon the vessel walls.

Treatment.—In excessive sweating of the feet Weiss[1] recommends the use of potassium permanganate in the following way:—Having cleansed the feet with borax, water, soap, and cotton pledget with benzine, they are immersed in vessels containing enough 1 per cent. permanganate to reach to the ankles. After fifteen minutes the feet are lightly dried and dusted with pot. permang., alum, talc, zinc oxide, and lapis calaminaris as a powder, the toes being kept separate with cotton-wool. This is repeated each night for fourteen days, the strength of the permanganate being gradually increased to ℈i to the quart. Weiss urges that this treatment is, unlike chromic acid, devoid of danger; is painless, it can be used without fear when there are fissures, as it heals them without the need of silver nitrate; it can be used in every stage of the disease; relapses are less common than with other treatments, rarely occurring before the third month; the use of the dusting powder will prolong the period before recurrence; the desquamation is not attended by tenderness, and walking is not unpleasant as with chromic acid. The treatment is not unpleasant to undergo except in so far as the excessive staining of the skin and nails is concerned. Corns are shed easily while the treatment is being used.

Dreuw,[2] in commenting upon the use of yeast in skin treatment, states that it contains albumin, fats, carbohydrates, water, salts with nuclein, zymose, endotrypsin and katalase.

Nuclein, by its action in producing leucocytosis after absorption through the gastro-intestinal tract, and its power of neutralising and destroying certain bacterial toxins, is of therapeutic importance. It is of use in abscess, acne, suppurating conditions of the skin, erysipelas, folliculitis, impetigo, and urticaria.

Yeast may be applied externally or internally. To facilitate the external application he has made a soap containing the active principles of yeast and one which is overfatted. It can be applied by (1) lathering and washing off, (2) lathering and drying in air and then rubbing with a flannel or woollen

[1] *J. Am. M. Ass.*, 1904, xliii. 369.

[2] *Deutsche med. Wchnschr*, 1904, xxx. 991; abstract in *Brit. M. J.*, 1904, ii. Epitome, p. 28.

cloth, (3) allowing suds to dry under a water-tight dressing. The intensity is in direct proportion to the method adopted. He has had the soap medicated with ac. salicyl, sulphur, ichthyol, &c. He claims good results with acne, folliculitis, small furuncles, and chronic dry eczema. In furunculi and folliculitis he recommends the salicylic and sulphur yeast soap.

W. KENNETH WILLS.

Reviews of Books.

Health and Disease in Relation to Marriage and the Married State Edited by Dr. H. SENATOR and Dr. S. KAMINER. Translated by J. DULBERG, M.D. Vol. I. Pp. 498. New York and London: Rebman Ltd. 1904.

This work is a translation by Dr. Joseph Dulberg, of Manchester, from the German edition. It consists of a series of contributions by various German physicians, several of whom, as Moll and Eulenberg, are well known amongst us. It treats of the relation of disease in the male and female with regard to marriage: what effect the physical state of husband and wife has or may have upon each other by their union, as well as upon their descendants, and indeed the welfare of whole families and communities.

The procreative faculties are dwelt upon with a plainness which seems hardly essential or in keeping with that English modesty which does not care to enter into the inner penetralia of married life, and which perhaps is more in keeping with Hindu ideas as displayed in the Sanskrit work of the "Ananga-Ranga."

No doubt greater care is requisite that the physical conditions of the contracting parties should be taken into account in proposed marriages, and the medical profession has already done much to guide the public aright in this matter, and might do more and so prevent a vast amount of misery. The more the medical profession becomes acquainted with the conditions bearing on the subject no doubt so much the more will an advance in this direction take place. It is the method to be adopted and made absolute that is the difficulty.

Still there can be little doubt that if the contents of this work were to be put into actual practice, men and women who are desirous to marry would all have to be entered on a kind of matrimonial register, giving a correct description of all their mental and bodily qualifications and defects for such union, and that on oath. Only in this way could all the great risks

and sad events we so often now become acquainted with as an outcome of unfitting alliances between male and female be in any degree done away.

Much of course must rest upon the advice of the medical adviser. As has been said not long ago[1]: "Many a man who requires a bracing obtains a relaxing wife, and many a woman who requires a relaxing secures a bracing husband. The matrimonial adviser, when consulted, might prescibe as follows: 'Sir, you are a weak-willed man, and it is necessary for you to marry a bracing woman who will rule you with a firm but gentle hand. Were you united to a relaxing woman you would probably be wretched.'"

In this volume is a series of papers collected into a compact body on a number of matters and questions dealing with the ante-nuptial, the nuptial and post-nuptial states. Amongst these subjects one finds discussed the hygiene of marriage, consanguinity, climatic influence, menstruation, diseases of organs and such-like matters. Vol. II., which is to follow, will deal with sexual diseases, diseases of women, insanity, intoxications, &c., &c. Much of the matter is interesting and of a useful character.

Manual of Hygiene. By W. H. HAMER, M.D., D.P.H. (Cantab.). Pp. xii., 622. London: J. & A. Churchill. 1902.

We must congratulate Dr. Hamer upon the masterly way in which he has dealt with his subject, and upon the general arrangement and style of his book, which combines the compactness of a text-book with the lucidity and fluency of a monograph. He has wisely refrained from taxing his reader with too much technical detail, especially where such subjects as bacteriology and chemistry are concerned, but on the other hand he might well have devoted more space to the discussion of such important questions as the position of Gärtner's bacillus in reference to Widal's reaction, or of the D^2 bacillus in connection with epidemics of diphtheria.

Many of the chapters might be fuller. The chapter on Air, for example, contains eighty-seven pages, and of these barely four are consigned to the important topic of vitiating dusts and vapours inseparable from many of our manufacturing industries. No mention, for instance, is made of the dyspepsia common among potters, or of the skin ulcers found in those engaged in the printing process known as "bronzing," &c. And more stress might have been laid upon the fact that factories, owing to their dusts and fumes, should be much more liberally lighted and ventilated than ordinary dwelling-houses.

The chapter on Dwellings, Schools and Hospitals is undoubtedly excellent.

We should have welcomed a more exhaustive discussion

[1] *Truth*, Oct. 0th, 1904.

upon the relative merits of the various methods of sewage disposal, which subject has been dismissed in nine pages! A full and detailed account of the biological process, with diagrams of tanks and plant, would have been interesting.

Infectious diseases are conveniently arranged in alphabetical order, but here again some omissions are noticeable. No mention is made of epidemic colitis, so common in large institutions such as Unions; and in reference to sewer gas and its bearing on enteric fever, the ubiquitous fly is not mentioned as a probable conveyor of infection.

The section which deals with statistics has been rendered not only readable but entertaining, which fact alone speaks volumes for Dr. Hamer's capabilities as an author.

The book is, we feel confident, certain to take a high place as a standard work.

Practical Handbook of the Pathology of the Skin. By J. M. H. MACLEOD, M.A., M.D. Pp. xxiv., 408. London: H. K. Lewis. 1903.

This work claims to be an introduction to the histology, pathology and bacteriology of the skin, with special reference to technique. It is primarily written for the use of students, but it is a work which no one interested in dermatology can well leave unstudied, for it is the only book of its kind yet written in this or any other language. It supplies a want which has been long felt, in that it is a reliable text-book in which the work of the best-known authorities has been judiciously compiled and classified, and yet at the same time one feels throughout that the facts stated have been proved, and that a master-hand has held to that which is good.

The future of dermatology lies very largely in a correct appreciation of the pathological conditions present in the various dermatoses. As Dr. Arthur Whitfield truly said at the Oxford meetings: "At the present day those who devote their attention to the special study of skin diseases have been directing their attention to the macroscopic and microscopic morbid anatomy of these, and by careful study of the micro-organisms present have done much to elucidate many problems of etiology."

At the same time one is struck very forcibly by the breadth of field opened up in this view of the subject and by the small amount of ascertained detail in even the commonest of affections. The future will add largely to our knowledge in this direction, and it will certainly help largely to this end that the present-day student can start with the basis so clearly and ably set forth in this book.

Among the references there is a singular dearth of English authorities, and this alone speaks for the need of advance amongst English dermatologists along the lines laid down. The book seems to herald a new era in what may indeed prove useful in

general as well as special pathology. The skin is easily examined, and its changes readily appreciated.

The book will find its place in the study as well as the laboratory, and it is difficult to praise too highly one so well compiled, so interestingly written, and so delightfully placed before the reader.

No pains have been spared to reproduce the drawings, coloured and otherwise, which alone speak for the patient and careful skill of the author.

There are chapters on subjects of a more general character, but which, however, bear strongly upon the skin, and add to the usefulness of the work. It is to be hoped that the subsequent editions will be kept up to date and produced in as praiseworthy a manner as the original.

Practical Text-book of Midwifery for Nurses. By ROBERT JARDINE, M.D. Second Edition. Pp. xv., 268. Edinburgh: William F. Clay. 1903.

This is a reprint of nursing lectures given in the Glasgow Maternity Hospital. It has only 250 small pages, and therefore many subjects are but lightly dealt with. The mechanism of labour is essential to the understanding of any case, and therefore it should be most carefully treated in any book intended as a guide to practice. Only a few pages are devoted to this.

Some subjects are very curtly dismissed. For instance, "In the concealed form of accidental hemorrhage, the only hope lies in forcible dilatation and delivery, or by doing a Porro's operation." Surely rupture of the membranes comes before these.

The diseases of the child, so important to nurses, are little more than tabulated. There is more said on syphilis than indigestion.

Allowing for these defects, mostly due to want of space, the book is readable, and may be useful to beginners.

Clinical Diagnostic Bacteriology, including Serum Diagnosis and Cyto-diagnosis. By ALFRED C. COLES, M.D., D.Sc. Pp. viii., 233. London: J. & A. Churchill. 1904.

The author describes this work as "a small book with an ambitious title," and explains that it is intended as a handbook for general practitioners who, without special laboratory training, are anxious to avail themselves of modern laboratory methods in the diagnosis of disease. Only a practitioner so placed, who has made a practical trial of this book, could say how far the author has attained his principal aim, but it certainly appears to us that for those who have *some* previous acquaintance with bacteriological technique, this volume will be found useful and

convenient. The various technical methods are simply and lucidly described, and the limits of their use in diagnosis and prognosis are indicated—an important point which is apt to be overlooked, especially by the inexperienced investigator.

More than one-third of the book is devoted to the author's original researches on the differentiation by staining reactions of the various acid-fast bacilli, which are likely to be confused with b. tuberculosis. His experiments and results are extremely interesting, but will of course require confirmation by experienced investigators; in fact, this portion of the book, which is the most valuable in a general sense, seems hardly in consonance with the scope of the work as indicated in the preface.

There are two very good coloured plates representing stained microscope specimens of various bacteria and other parasites, but both in the coloured plates and in the text a little more detailed description of the various forms of the diphtheria bacillus might have been given with advantage. The "barred" forms are not very distinctly described in the text, and in the plates the fine, long bacilli with two or more granules stained by Loeffler's blue are not figured. An illustration of Hofmann's bacillus (which is spelt "Hoffmann") would be a valuable addition.

The account of the diphtheria organisms illustrates again the confusion which is produced by the use of that unfortunate prefix "pseudo." Dr. Coles restricts it to the Hofmann-Wellenhof organisms; many authors include the Xerosis bacillus under this term, and by others it is loosely used to describe any non-virulent or slightly virulent organism resembling the true Klebs-Loeffler bacilli. In some of the quotations given from other writers it is not clear whether the term is used in the more restricted or the wider sense.

The chapters on Serum Diagnosis and Cyto-diagnosis form a useful introduction to these subjects. The details of the microscopical preparations involved might perhaps be a little fuller, but references are given to easily-accessible papers which will sufficiently supplement the text. The work on the whole is of an eminently practical character, and in this lies its main value to the student of clinical bacteriology, to whom it may safely be recommended as a useful technical guide.

On the Sterilisation of the Hands. By C. LEEDHAM-GREEN, M.B., F.R.C.S. Pp. 102. London: Simpkin, Marshall, Hamilton, Kent & Co. Ltd. 1904.

There is no part of the technique of surgeons more varied than the methods by which they attempt to sterilise their hands. A vast amount of good work has been done on this subject in many countries, and still there is no agreement. The reason of this is not hard to see if one reads this monograph. No method is satisfactory. The writer has approached the

subject with great and honest care and with an unbiased mind. He has multiplied his experiments, and has used numerous different hands for trial. He concludes that soap and water alone is useless, in fact worse than useless. Even if sand be added the results are no better, however long the washing is continued. Treatment afterwards with turpentine, aqueous solutions of carbolic, lysol, perchloride and binodide of mercury give no better results. Permanganate of potash and oxalic acid are quite inadequate. Ether is not mentioned. Alcohol possesses a remarkable power of sterilising the hands far surpassing that of all other agents, but it must be used for at least five minutes, and a rough hand can in no way be cleaned. The most efficient method of all is to use soap and water and sea sand for five minutes, methylated spirit for three minutes, and 20 per cent. sublimate alcohol (1 in 1,000), rub dry. But even this is not reliable, so gloves should be worn when possible.

Surgical Lectures and Essays. By A. MARMADUKE SHEILD, M.B. Pp. 312. London: The Medical Publishing Company, Limited. [N.D.]

This is an interesting and useful little book. We have not discovered much that is very original in the articles it contains, and most of the chapters are reprinted clinical lectures, and are therefore specially intended for students, but they may also be read with profit by practitioners. As might be expected from Mr. Sheild as the author of a book on diseases of the breast, many chapters are devoted to this subject. Some deal with abdominal surgery; and such subjects as the treatment of fractures, ulcers of the tongue, and goitre are also considered. Mr. Sheild's remarks about the management of fracture are full of practical lessons. He explains why he differs from Mr. Arbuthnot Lane in his recommendation that a very large number of simple fractures should be operated on. The book may be taken up by the busy practitioner and a chapter read in short intervals of leisure or in driving about (for the print is very large and clear), and it will not fail to interest and instruct.

Diseases of Metabolism and Nutrition. By Prof. Dr. CARL VON NOORDEN. Part IV.—*Acid Auto-intoxication*, pp. 80. Part V.—*Saline Therapy*, pp. 89. Bristol: John Wright & Co. 1904.

This series of clinical treatises on the pathology and therapy of disorders of metabolism and nutrition has already been noticed previously—vol. xxi., p. 159.

It has long been well known that the intestine is a constant source of poisons, which under certain conditions cause grave alterations in the principal organs and functional troubles, among which those of the nervous system occupy a prominent place. The recent investigations of von Noorden tend to show

that (1) there are numerous forms or manifestations of self-poisoning; (2) the acid forms are amongst the gravest of them; and (3) those special perversions of metabolism resulting in the excessive production of oxybutyric acid, diacetic acid, and acetone, which so greatly endanger diabetics and also complicate at times other diseases more or less seriously, are of the utmost practical importance. The work of Bouchard and his pupils has been fully confirmed from German observers, and it has been found that such intoxications may be associated with diarrhœa, or more commonly with constipation, and are to be remedied by modifications of the diet, by sterilisation of the intestine, by drugs, and by mechanical cleansing of the alimentary tract. Much valuable work as to the origin of acetone bodies, whether diabetic or otherwise, has been done, and this book gives a full account of the pathological and therapeutic considerations of diabetic acidosis.

The therapy of the saline waters has hitherto been almost entirely empirical, but recently Dr. von Noorden, with the assistance of Dr. Carl Dapper, of Bad Kissingen, has endeavoured to place balneological methods of treatment on a more scientific basis.

The Meaning of a Modern Hospital. By W. Bruce Clarke, M.A., M.B. Pp. 47. London: Longmans, Green & Co. 1904.—At the present time, when hospital construction is as bad as it ever has been, and, we trust, worse than it ever can be in the future, this short pamphlet, written by a surgeon of experience, whom necessity has converted into an expert, will be read with considerable interest. Depleted exchequers, suggestions of wider spheres of usefulness and other causes have combined to drive some of the great London hospitals to wondrous schemes for removal and rebuilding; and among others the author's hospital has had to consider its condition and position, with the result that Mr. Bruce Clarke has not studied the question from the dilettante point of view of a surgical amateur, but has had to acquire information and formulate ideas which would stand the test of practical application. Thus being in the position of one who has worked for years in hospitals, and running the risk of having to work in one of his own planning, fond theories and fads are given no place in his schemes. In dealing with the "Ward Unit," timely stress is laid on the fact that the cubic space allowed per bed must be calculated on a minimum superficial area, that height in a ward will not atone for want of floor space. Windows far above the patients' heads are very properly ridiculed as means of ventilation, and a practical point is made in insisting that a window should divide every two beds. As regards the single story pavilion system of building hospitals he says:—"By improved structural arrangements, judicious attention to sanitary details, and modern antisepsis and asepsis, septic diseases

have practically been abolished in almost all hospitals, and it may therefore be regarded as reasonably permissible to construct higher buildings than would have been thought advisable a few years back, providing the height of any pavilion is not such that it will interfere to any considerable extent with the air and sunlight of its neighbours." Five floors he looks upon as probably a working limit. In dealing with isolation accommodation for infectious diseases and septic surgical cases, ten beds per cent. of the whole is suggested as a fair proportion. He is here probably below the mark of useful working as regards septic surgical cases, though above the proportion usually allotted. The value of the surgical work done in a hospital can be made greater by increasing the accommodation for what, for want of a better term, may be called "Conservative Surgery." Of ventilation suffice it to say that artificial systems are said to have been tried and failed, and for this reason:—"The fouling of the air of a building or hospital depends largely on the human beings who inhabit these places, and by far the largest portion of this uncleanliness is derived from the human breath. But few bacteria probably are emitted during quiet conversation—it is mainly during coughing, sneezing, and flights of oratory that a bacterial bombardment occurs." And yet modern surgery does not always cultivate silence on the part of the operator as a virtue. Silence is not only golden, it is aseptic. The conclusion is not hopeful. With the jerry builder at large, backed up by the opinion of certain experts that a modern ward should only be constructed to last fifty years, nothing is more sure than that the hospitals of to-day bid fair to be worse than the vilest efforts of our forefathers, and to become the laughing-stock of our grandsons, if the buildings cling together even so long.

Practical Physiological Chemistry. By J. A. MILROY, M.A., M.D., and T. H. MILROY, M.D. Pp. viii., 201 (interleaved). Edinburgh: William Green & Sons. 1904.—An excellent handbook for students in the laboratory, well-arranged, concise and intelligible, is this which has been provided by the Professor and the Demonstrator of Physiology at Queen's College, Belfast. Its brevity is not the result of undue condensation such as is now the fashion in most books compiled for the reading of students, but of the essentially practical nature of the work. The method alone is considered, and for the theory the student is advised to consult his other authorities. Thus an admirable volume has been produced; experiments are fully described and alternative tests are dealt with at some length, while numerous cross references in the text add greatly to the simplicity and coherence of the subject. The chapters on the chemistry of the urine are particularly good, and should recommend themselves not only to the junior students for whom the book is intended. Garrod's methods of separating the pigments are carefully described, and the quantitative analyses are as simple as com-

plicated processes can be made. No space is wasted on the pathological significance of the various abnormal constituents of the urine, and the advantage of this course becomes apparent on comparing the book as a whole with others that profess to enlighten and serve only to mislead. On the whole the authors may be congratulated on their moderation, which, by keeping strictly to the limits laid down by themselves, has produced a not only lucid guide for the beginner, but a valuable work of reference in laboratory methods to the advanced and the expert.

Medical Tuberculosis: its Rational and Natural Cure, its Several Stages, and Relationship to Cancer. By R. B. SEARLE. Pp. 40. London: The Scientific Press Ltd. 1904.—This treatise, written by the Mayor of Dartmouth, is dedicated to philanthropists of all nations, as it is on behalf of suffering humanity dwelling in all climes. It is a tirade against things in general, London in particular, and the fashionable doctor who is considered to be unpractical. The author believes that the typhoid bacillus is antagonistic to that of tubercle, and that anti-typhoid serum should cure the consumptives in our sanatoria; he further believes that pure air is as inimical to the propagation of cancer as of tubercle, and that the germs of cancer might be stamped out by inoculation with anti-toxic serum commenced in infancy. Many facts are needed to give even a semblance of verification to the eccentric theories and views here propounded: the fashionable doctor's "book learning and lecturing" are not yet supplanted by unexperimental speculations and vague fancies.

Manual of Operative Surgery. By H. J. WARING, M.S., M.B. Second Edition. Pp. xxviii., 659. Edinburgh: Young J. Pentland. 1904.—The second edition of this manual has been considerably altered from the first. There is a difference in the type, so that although the number of pages is practically the same, the amount of material it contains is much greater. It is also bound into a smaller and more compact volume. At the commencement there is an excellent chapter on The Preparation of an Operation Room and the Sterilisation of all the Apparatus to be used. The chapter on Operations on the Stomach and Intestines has been greatly amplified; a section on The Radical Cure of Femoral Hernia has been added to that on Hernia, one on The Surgery of the Ureters to that on The Urinary System, and much new material, especially on The Operative Treatment of Extra-Uterine Gestation to that on The Female Genital Organs. In fact the whole book has been thoroughly revised and brought well up to date, and may be looked upon as a very useful and compact manual of operative surgery.

Cleft Palate and Hare-lip. *The Earlier Operation on the Palate.* By EDMUND OWEN, M.B., F.R.C.S. Pp. viii., 111. London: Baillière, Tindall and Cox. 1904.—The reader will find in this little book a thoroughly practical description of certain operations

for cleft palate and of the author's operation for hare-lip. For the former condition the operation devised by Dr. Brophy, of Chicago, is specially recommended. In this, which is performed in early infancy, the cleft is narrowed by the forcible approximation of the maxillary and palate bones. For three or four weeks the approximation is maintained by wire sutures passed through the maxillæ above the palatal processes and fastened over small leaden plates on the external surfaces of the maxillæ beneath the cheeks. Mr. Owen writes that of late years he has cordially adopted this procedure, although it is attended with increased risk. The first three months of life is considered to be the best age-period for the closure of a cleft-palate, if the health of the child is good. In addition to describing operations, the author discusses well the preliminary preparation of the patients and the after-treatment. The suggestions as to the best ways of overcoming the difficulties of the operations and of the subsequent treatment are excellent. We are of opinion that the book will prove distinctly useful to young surgeons when undertaking their earlier operations for congenital defects of the palate and lip.

The Care and Feeding of Children. By L. EMMETT HOLT, M.D., with an introduction by ERIC PRITCHARD, M.A., M.D. Pp. 149. London: Sidney Appleton. 1904.—This admirable little book contains the substance of Dr. Emmett Holt's well-known principles in the care and management of infants and young children. It is arranged in the form of question and answer, and is primarily intended as a manual for children's nurses. Though the style is simple, and as far as possible technical terms are avoided, we doubt whether it is quite within the grasp of the average nursemaid in this country; on the other hand, the trained nurse will find it most useful, and even the medical student might read it with great advantage. Naturally, the modification of milk, according to Dr. Holt's system, occupies a large place. Opinions may vary as to the necessity in most cases of the extreme dilutions he recommends for young infants, for although at the fifth month his formula gives a percentage almost identical with plain milk (but containing more sugar and rather less proteid), he does not allow pure cow's milk to be given till well on in the first year. The question as to whether boiled milk is less digestible than unboiled is answered in the affirmative, although many authorities consider it still undecided, and Pasteurisation is strongly advocated in place of sterilisation. Dr. Eric Pritchard's introduction is mainly laudatory in character, and considering Dr. Holt's reputation among all who are interested in pædiatrics, is a trifle superfluous: on the other hand, a few explanations of words the significance of which is not commonly known on this side of the Atlantic would have been useful. "Rare," for instance, as meaning "raw or underdone," "snug" for "tight," "desserts" for

"sweet puddings," "crackers" for "biscuits," might puzzle many people in this country. Moreover, the substitution of English for American manufacturers of small pieces of apparatus referred to in the notes would be a decided convenience to English readers.

Insanity in Every-day Practice. By E. G. YOUNGER. Pp. viii., 110. London: Baillière, Tindall and Cox. 1904.—The author has sought in this small work to give the main outlines of diagnosis and prognosis in the ordinary forms of insanity, and of legal enactments bearing on the insane, and to treat the subject generally from a practical standpoint, that ready assistance may be forthcoming to practitioners who have not had special training in this branch of medicine. The book is written in an easy conversational style, which at times has resulted in some indefiniteness of expression; we are sure that the author's meaning is not always clearly conveyed. We should hardly care to accept in the strict sense passages such as "A delusion is a false belief in some fact;" "Hallucinations . . . become fixed delusions;" "Delusional insanity is . . . characterised by fixed and systematised delusions . . . and is not ordinarily accompanied by any failure of the reasoning faculties;" "G.P. used to be rare in women, but is now becoming commoner, the ratio being about 1 in 4." In writing of general paresis, the author says, "Cases of melancholic type are not unknown." It might have been said they are not uncommon; still more common being cases in which dementia is so early and rapid that the emotional features of G.P. are hardly seen. We object to the insanity of adolescence receiving the alternative title of "Dementia Precox," nor can we agree to the statement that "it is occasionally ushered in by excitement, but more often the patient becomes depressed." Although symptoms of exalted self-feeling are here relatively less frequent in males than females, yet the type of adolescent insanity is rather mania proper than melancholia. When complicated by excessive masturbatic habits, depression may constitute the prevailing emotional tone, but as the author takes the trouble to describe masturbatic insanity as a separate type, there appears no reason to merge its symptoms into those of adolescent insanity. In describing the latter again, he writes, "The tendency of the disease is in all cases towards a slowly increasing dementia. . . . Many varieties of dementia precox have been described . . . but in all of them the dementia slowly increases." Such a gloomy prognosis can only appertain to adolescent insanity when confounded with dementia precox. We regret to notice that the term "acute dementia" is still employed to designate a recoverable disease; it is illogical and misleading to the student. Nor do we think that acute alcoholic insanity is so good a synonym for delirium tremens as acute alcoholic delirium. The book contains useful information on the legal bearings of insanity and on the

examination of alleged lunatics. The description of the usual types of mental disease comprises all the salient symptoms, and presents them in a concise and effective manner. The author's large experience of the insane enables him to give many valuable practical hints in the course of what is, as a whole, a decidedly handy volume for the purpose set forth.

The Extra Pharmacopœia of Martindale and Westcott. Revised by W. HARRISON MARTINDALE and W. WYNN WESTCOTT, M.B. Eleventh Edition. Pp. 809. London: H. K. Lewis. 1904.—In spite of the addition of more than three hundred new remedies, drugs, and preparations, and a more detailed account of many useful therapeutic agents, the size and weight of the volume have been decreased by the employment of a finer paper. A new section, entitled "Radiology," gives all recent information on radio-active substances, Röntgen rays, high-frequency current, Finsen lamp, and radiant heat in their application to therapeutics. The bacteriological notes and the section on Antitoxins and Organotherapy have been corrected or rewritten. If the physician could adhere rigidly to the official pharmacopœia there would be no need for this book; but as no one either does or could afford to do this, *The Extra Pharmacopœia* becomes an indispensable companion which should be found on every consulting-room table.

Clinical Studies in Syphilis. By ARTHUR H. WARD, F.R.C.S. Pp. iv., 156. London: The Medical Times, Limited. 1904.—In these Clinical Studies the author persistently and ingeniously endeavours to show how the varied phenomena of syphilis can be explained if the view be accepted that the cause of the disease is a slow-growing microbe which produces an irritating toxin. Though bacteriological and chemical researches have not as yet succeeded in demonstrating the existence of such a microbe nor of such a toxin, yet the hypothesis of their existence explains so well the clinical features of the disease that it is difficult not to believe in it. Apart, however, from the striking application of the above hypothesis in these Clinical Studies, we have in them an extremely interesting and instructive account of the signs and symptoms of syphilis, including many of its rarer manifestations, an account obviously based upon large experience and careful observation. In addition the principles of treatment are helpfully discussed and many practical directions for such are given of a kind which receive little or no attention in ordinary surgical text-books. The subject-matter of the book, being of such good quality, might appropriately have appeared in better costume than that provided by small print on small leaves of poor paper.

Manual of Surgery. By ALEXIS THOMSON, M.D., and ALEXANDER MILES, M.D. Vol. II. Pp. xiii., 723. Edinburgh: Young J. Pentland. 1904.—The general excellence displayed in the first volume of this work is well maintained in the

second on regional surgery. A great feature of the book is the surgical anatomy printed in small type at the commencement of each chapter, this matter being a stumbling-block to the student. The subjects treated are brought well up to date. Especially noticeable are the chapters on diseases of the stomach and pancreas and the various affections resulting from gall-stones. The methods of differentiating the urines and estimating the adequacy of the excretory functions of the kidneys are plainly stated. The chapters on peritonitis, including the pneumococcic and gonococcic varieties, and appendicitis, with indications for operation laid down as clearly as possible, are very good. Schleich's method of infiltration anæsthesia is explained, and Killian's tubes for bronchoscopy are mentioned. These are only a few examples that might be quoted as indicating the up-to-date nature of the work. A further point in its favour is that, notwithstanding its small size, it is very readable. We think it the most useful surgical text-book for students we have recently seen.

Adenoids. By WYATT WINGRAVE, M.D. Pp. viii., 128. London: Baillière, Tindall and Cox. 1904.—This number of the Medical Monograph Series contains a good and practical account of adenoids. The earlier chapters deal with the anatomy and pathology of the pharyngeal tonsil, and later chapters with the diagnosis of adenoidal hypertrophy and with the palliative, operative, and post-operative treatment of the affection. In the last chapter, written by Mr. Hotten George, the various methods of inducing anæsthesia for the removal of adenoids are considered. Nitrous oxide is the anæsthetic most favoured for patients above three years of age. Below that age there is a liability to the production of an unpleasant degree of asphyxiation and of embarrassing convulsive movements with this anæsthetic. The chief instrument recommended for the operation is the simple Gottstein curette of the rectangular shape. The addition of a cage with projecting teeth to this instrument, the Delstanche modification, is said to be quite unnecessary. One sweeping movement only is made with the curette, and if any fragments of growth are left they are removed with a special forceps, or, in some cases, with a small ring curette passed through the nostril. The finger is introduced two or three times, viz. before operation, after using the curette, and, if forceps are required, again after their use. In our opinion, nitrous oxide anæsthesia does not lend itself well to the introduction of a tonsil guillotine twice, a forceps and ring curette once each, and the finger three times. We approve the selection of nitrous oxide as the anæsthetic, with the limitations mentioned, but we have rarely found it necessary or advisable to introduce foreign bodies into the naso-pharynx so many times. We would, however, advise the practitioner not specially expert in the performance of the operation to use ether or some other agent which yields longer anæsthesia than

nitrous oxide. The recognition of adenoids is usually easy and the operation for their removal simple, though not difficult to mismanage; the evils they cause are varied and serious, and the benefits conferred by their successful removal correspondingly great. This little guide-book well points the way to success in treatment, and we can strongly recommend it to general practitioners, the class of readers for whom it has been specially written.

A Manual for Students of Massage. By MARY ANNE ELLISON. Second Edition. Revised by Gulielma Manley. Pp. xii., 126. London: Baillière, Tindall & Cox, 1904.—This is a very useful book for men and women who are being trained to give massage, and has been brought up to date by the addition of instructions on the process as applied to recent fractures and sprains. It pre-supposes throughout the guidance of a trained teacher, and the greater part of the book is taken up with a simple account of anatomy and physiology, tables of the origin, insertion and action of muscles, and fifty diagrammatic plates of the muscles and bones. Of course a knowledge of the anatomy and physiology of the human body cannot be given in 120 pages of clear type, but as an introduction to larger books, or as a handbook for refreshing one's memory, both the text and the diagrams are admirable. On page 50 there is a curious statement on micturition: "The act is completed by increased urine, which quickens the stream and expels the last drops from the urethra." The chapters on Practical Massage and the Weir Mitchell treatment are very interesting, but a caution should be given as to the danger of massage for varicose veins which are thrombosed. There are, indeed, many shrewd suggestions and cautions in the book, and the teaching is, as a rule, sound and good. If patients with, for instance, kidney disease, take massage without medical advice, they cannot expect the attendant to warn them of its dangers. The author points to the risks of such work in the dark, and thus adds to the value of a carefully-planned book.

The Pharmacological Action and Therapeutic Uses of the Nitrites and Allied Compounds. By the late DANIEL JOHN LEECH, M.D.Lond., D.Sc.Vict., F.R.C.P. Pp. 187, with 28 Plates. Manchester: Sherratt and Hughes. 1902.—This volume consists of the Croonian Lectures for 1893, which have been revised and rearranged by Dr. R. B. Wild, and a lecture added on the relation of pharmacology to therapeutics, which affords a valuable indication of the lines upon which Professor Leech taught, and upon which he conducted his own researches. The author's other papers upon the nitrites have been included

The Management of Lateral Curvature of the Spine, Stooping, and the Development of the Chest in Phthisis.—By E. NOBLE SMITH, F.R.C.S.Edin. Pp. vi., 132. London: Smith, Elder and Co. 1904.—The author describes in a clear and simple

manner his method of dealing with cases of lateral and posterior curvature of the spine, and a chapter is added on a method for developing the chest in phthisis. In respect to lateral curvature and posterior curvature (stooping), he has discussed the advantages to be derived from scientifically-applied exercises, while he maintains that in most cases the use of a mechanical appliance is also advantageous. The particular splint advocated by the author is one known as Chance's splint, which is in use at the City Orthopædic Hospital, and he objects altogether to the closely-fitting plaster of Paris and poro-plastic felt jackets used by Lewis Sayre and others. He considers that the majority of cases of lateral curvature can be treated successfully without massage, and therefore we should not prescribe this expensive method of treatment unless we see some special reason for so doing. The author does not seem to hold a very high opinion of Swedish exercises, but recommends certain movements of his own, which do not seem to differ in any essential principles from the so-called Swedish movements. No doubt every case must be treated on its own merits, and if Mr. Noble Smith's directions are followed success will result in all the less severe cases of this troublesome, but often too much magnified, deformity.

Medico-Chirurgical Transactions. Vol. LXXXVII. London: Longmans, Green & Co. 1904.—One of the most noteworthy papers is that by Dr. G. C. Garratt, entitled "Observations on Metabolism in the Febrile State in Man." It is a very elaborate investigation, the report extending to some 160 pages, the result of steady work during a seven years' residence in the London Fever Hospital. A paper of considerable interest just at the present time is that by Drs. Bardswell and Chapman on "The Economic Value of the Sanatorium Treatment for the Working Classes, based upon after-histories." The general outcome of this investigation is that general hospitals should treat a few really hopeful cases on sanatorium lines; and as regards the after-treatment, "the crux of the social factor seemed to be largely a matter of diets; for if a working man, after defraying expenses of house-rent, clothes, &c., had a sufficiently good margin left with which to buy an adequate diet he usually did well, but not otherwise."

The After-treatment of Operations. By P. Lockhart Mummery, F.R.C.S. Second edition. Pp. viii., 240. London: Baillière, Tindall & Cox. 1904.—In many text-books after-treatment does not receive the attention it deserves, and this little manual for practitioners and house-surgeons serves to fill up the gap. It is brief, but its teachings are sound, and it may therefore be safely referred to by those for whom it is intended; and though it contains nothing new, it should prove helpful to many who have not had a large practical experience. Some of the illustrations might be redrawn with advantage.

Editorial Notes.

University College, Bristol.

The presence of the distinguished President of the Royal College of Physicians of London (Sir William Selby Church, Bart., K.C.B., M.D.) gave much *éclat* to the annual distribution of prizes to the students of the Faculty of Medicine on October 28th, 1904, under the chairmanship of the Right Honourable Lewis Fry. The Dean of the Faculty reported numerous distinctions obtained by Bristol students during the year, and mentioned that the Long Fox Memorial was one of the medical events of the year.

* * * * *

Long Fox Memorial Lectures.

This memorial was established by private contributions in memory of the late Dr. Edward Long Fox, and the amount contributed has been devoted partially to the endowment of a lectureship in the College, the lecture to be given annually by some person to be selected from time to time by the Trustees. The first Long Fox Lecture was given by Dr. John Beddoe, F.R.S., on November 4th, 1904, and we are gratified that we are able to give our contributors an opportunity of reading it at leisure.

* * * * *

Long Fox Memorial.

The amount subscribed by the friends of Dr. Long Fox after defraying the expenses and providing a memorial brass placed in the Bristol Cathedral, was vested in trustees for the purpose of providing (*a*) an honorarium to the lecturer, who shall be appointed annually to deliver one lecture at the University College, Bristol, on some subject connected with medicine or the allied sciences. The lecturer shall be selected from Bristol or the neighbourhood, or shall have been formerly a

student or member of the teaching staff of the College. (*b*) An endowment (subject to the payment of the said honorarium to the lecturer) of the Long Fox Medical Missionary Fund, for the benefit during such time as the Appointing Board may from time to time determine while he continues at the College of a "Long Fox Medical Missionary Student," such student having been entered for not less than one academic year and registered as a medical student by the General Medical Council.

* * * * *

Medical Education.

THE necessity for the maintenance of the standard in the classical education of the medical student has been happily illustrated by the Professor of Greek and Latin of the University College, Bristol, Professor Brooks, M.A., in the opening lecture of the present session, on "The Claims of the Classics," when he remarked that "it had been his privilege ever since it was first started to take in the *Stethoscope*, the organ of the Bristol Medical School. Nothing was more encouraging to a student of the classics than to observe how, in the technical articles of that journal, the vocabulary was almost wholly taken from the Greek. The small amount that was not Greek was Latin, and sometimes the two languages were combined with lawless dexterity in one and the same word. The dependence upon them was so absolute, that one was driven irresistibly to the conclusion that if the Greek and Latin languages did not fortunately already exist it would have been necessary for the purpose of medical science to invent them." When we hear protests from the unlearned as to their difficulties in comprehending the names of plants and flowers, it would appear that the fault lies not in the names of the plants, but in the want of education in the classics: it therefore becomes a duty of the scientific physician, chemist, botanist, &c., in these days when the future of the classics is in the balance, to do all in their power to maintain untarnished the inheritance of the past, and especially so as we learn, again from Professor Brooks, that "the cause of the classics is destined to survive. If it is eclipsed for a time it will have a new renascence, for its anchorage is in the general heart of mankind; it is interwoven

with the stuff and fabric of human life, with the past history of man and his future destinies, his emotion and morality, his feeling for conduct, and his sense of beauty. So long as the human spirit seeks above all for human sustenance—in other words, so long as humanity remains in man—so long, I imagine, will these studies retain an eternal fascination and an eternal appeal."

Some remarks of Dr. Pye-Smith recently tend in the same direction: "Technical education is an admirable thing, but whenever a boy at school is put on the modern side because he is intended to be a merchant or a druggist, his education for its own sake, his liberal education, has ended. He may go on if well grounded to an indefinite degree of excellence, but he has already begun the important task of providing for himself and those dependent on him. His science is *Butterbrod-Wissenschaft*, and he feeds no more on ambrosia."

* * * * *

The Treatment of Insanity.

Dr. Eager, in his address to the Bristol Medico-Chirurgical Society (page 289), has recently given us a sketch of what a properly-equipped hospital for the insane might be like in the future, and a suggestion was made that such cumbrous methods as certificates might be done away with.

The difficulties in carrying out a sufficient treatment of insanity have been well described by Dr. T. Claye Shaw, in his book entitled *Ex-Cathedrâ Essays on Insanity* (Adlard & Son, 1904, p. 228), when he remarks that "the well-to-do private patient is the one who has the best chance of being successfully treated: he can have the advice of the general physician as well as that of the specialist, of the electrician, and of the chemist to examine the secretions, of the bacteriologist, and of the surgeon; for it is very certain that knowledge in those departments is essential to the true diagnosis of most forms of insanity, and therefore to the treatment. As a rule, partly owing to the expense, partly to the prejudices of the friends, it is not possible to obtain all the conditions necessary for recovery." Of late years the public have been so steeped in

prejudice against all private asylums that we welcome the above views as being sound and in the best interests of the patients mentally afflicted.

* * * * *

Winsley Sanatorium.

We are authorised to inform our readers that the Sanatorium has been nearly completed. The building itself is finished and the main block in full work, and the second block will be ready for patients in a fortnight. Thus eighteen beds were thrown open on December 5th, and the remaining forty-two will be available by the second week in January next. Of the eighteen now being occupied, twelve belong to the maintained beds, and are as follows: Bristol Corporation, six; and one each to Bath Corporation, Swindon Town, G.W.R. Works, Swindon, Bradford and Trowbridge, Highworth Rural District Council, and the Clarke bed. The first two of these are proportioned to their full number to be maintained, the others have been allocated by ballot. The six non-maintained beds are open to any subscriber's nomination. For these application has to be made to the Secretary, Mr. L. A. Goss, 84 Park Street, Bristol, from whom nomination papers and certificates may be obtained, and to whom they should be returned when filled up and signed. When a bed is available the Secretary will send an intimation to the applicant if the case is suitable. For these beds a weekly sum not exceeding ten shillings a week will be charged, and the amount must he paid monthly in advance. The Secretary will give any information desired in reference to maintained beds, and to whom applications should be made for these beds.

In all cases the applicant, after being recommended by a medical practitioner, will have his reports brought before a member of the Medical Board, who will certify as to the fitness or otherwise of such applicant for treatment in the Sanatorium.

Notes on Preparations for the Sick.

For the various analyses contained herein we are indebted to Mr. Oliver C. M. Davis, B.Sc., A.I.C., of the University College, Bristol.

Awards at the St. Louis Exhibition.—Gratifying evidence of the recognition extended to British drug firms is furnished by the honours awarded by the Committee of the St. Louis Exhibition to Messrs. Burroughs, Wellcome & Co.'s exhibit of "Wellcome" Brand Chemicals, "Tabloid" and other pharmaceutical products and "Tabloid" Medical Equipments. Three grand prizes and three gold medals have been conferred for the scientific excellence of these products, and in recognition of the importance and educational value of the chemical and bacteriological researches conducted in the laboratories of this firm.

Galak (Dry Milk).—Galak Milk Products Limited, 118 Fenchurch Street, London, E.C.

This new dry sterile milk powder is one of the best of the various milk preparations at present on the market. A chemical examination shows that it is what it purports to be. It contains a good proportion of proteid, fat, and milk sugar, and forms an opalescent emulsion with water. It is pleasant to taste, and should prove a valuable addition to the dietary of invalids and others.

It is in the form of a light yellowish, flaky powder, which has the natural taste and odour of milk. It is obtained by drying milk rapidly at a high temperature, and is easily brought back to liquid milk of excellent quality by adding water. Milk to be dried by this process is fed continuously between two steam-heated cylinders revolving inversely and having a surface temperature in excess of 212° F. It passes between the cylinders (which are slightly separated), and is spread out in a thin uniform layer or film upon each cylinder and exposed thereon until reduced almost to dryness, being removed by a knife-edge while the film of milk solids yet retains sufficient moisture for their preservation. The milk solids come off the drying rolls in continuous moist sheets, which become dry instantly upon cooling, and are easily reduced to a uniform powder by being passed through a sieve.

The whole operation of evaporating the water of milk and obtaining its solids in dry conservable form occupies less than thirty seconds. The milk is dried as soon as it comes from the cow, and there is, therefore, no possibility of chemical change taking place in it before drying.

Milo Food, for Infants and Invalids.—HENRI NESTLÉ, Vevey, Switzerland, and 48 Cannon Street, London.

The analysis of this food is given as follows:—

Fat	5.26
Proteids	14.02
Sugar of Milk	6.38
Maltose and Dextrine	26.12
Cane Sugar	27.67
Starch	14.95
Mineral Matter	1.95
Water	3.65
	100.00

It is supplied in hermetically-sealed tins, and is stated to be prepared from wheat, milk, and sugar only.

An examination shows it to be a cooked farinaceous food, containing in addition about 12 per cent. proteid and 5 per cent. fat. It should therefore be a nutritious food in cases where a rather large amount of carbohydrates is not objectionable.

The amount of starch present would, however, render it undesirable as an adjunct to the food of very young infants.

Moseleys Food.—MOSELEYS FOOD LIMITED, Stockport.

Is described as "a delightful supper dish," and "made in a minute," for infants, invalids and adults. A statement is made that it contains no "raw" starch, and no "insoluble" starch.

An examination shows that the preparation, although cooked, contains numerous grains which give the characteristic microchemical reactions of starch. It contains over 10 per cent. proteids, and a small amount of fat. The published analysis states that it contains about 60 per cent. dextrines and other soluble starch products, but our analysis differs with regard

to this, as starch-grains cannot be considered as soluble products.

Mellin's Food Biscuits.—MELLIN'S FOOD LIMITED, Peckham London, S.E.

These biscuits contain a good proportion of the well-known Mellin's Food. They contain proteid matter, and also starch, and, being very portable, should be useful where a concentrated nutriment is desired.

Mellin's Lacto-Glycose.—(Mellin's Food with exsiccated fresh milk.)

An analysis shows the presence of proteid, dextrine, and fat. No starch is present, hence the preparation may be given to young infants. The following is the full analysis of the Lacto-Glycose food:—

Moisture at 100° C.	3.808
Ash (containing 0·827 P_2O_5)	3.640
Fat	4·579
Carbohydrates—	
(*a*) Maltose and Lactose	56.319
(*b*) Dextrine	18.162
(*c*) Cellulose, Fibre, &c.	0.800
Proteids—	
(*a*) Albumin (containing 1.51 N.) ...	9·437
(*b*) Peptones (containing 0.18 N.) ...	1.120
(*c*) Insoluble and Amide Nitrogenous matter (containing 0.302 N.) ...	1.887
Unestimated	0.248
	100.000

For use it should be mixed with warm water only; thus prepared it constitutes an easily-digested, nutritious, and sustaining food for the old as well as the young. This combination of carbohydrate with proteid is really an improvement on an ordinary milk food; it is therefore something more than a substitute for milk when the latter cannot be obtained or cannot be guaranteed as free from injurious qualities. Its nutritive value is superior to that of milk alone, and, being soluble, it is not likely to cause any digestive troubles.

Cheltine Foods: Diabetic Food; Almond Meal Biscuits; Soluble Milk Food.—CHELTINE FOODS LIMITED, Cheltenham.

We have directed attention to some of the Cheltine foods on a previous occasion (vol. xxi., p. 373). A pamphlet issued by the Cheltine Company dilates on the value of the CHELTINE DIABETIC FOOD for diabetics, and states that the contained starch, though it gives the usual reactions, exists in a modified

form. The preparation is undoubtedly cooked, but micro-chemical examination shows the presence of large numbers of starch grains, and how they differ from ordinary starch grains is somewhat difficult to see or to understand.

An examination of the ALMOND MEAL BISCUITS showed a similar state of things. Whether such preparations should be used in cases of glycosuria is a matter for the physician to decide on the merits of each individual case; from a chemical standpoint there is apparently no special merit appertaining to such diabetic foods as these, and they are decidedly misleading and injurious to those who require a rigid anti-diabetic dietary. It is stated that the object aimed at has been to so treat the starch that in the body of the diabetic it should behave differently from ordinary starch. Experience has shown us that the starch present in these foods becomes converted into diabetic sugar and is freely eliminated in the urine.

Two varieties of the CHELTINE SOLUBLE MILK FOOD are made, No. 1 and No. 2. The former is for infants from birth to three months, the latter for infants from 3–6 months and for invalids. Both preparations were subjected to careful chemical and micro-chemical analysis. They are both quite free from starch, and contain large amounts of proteid, milk fat, and milk sugar. They are partially soluble in water, forming an opalescent solution. From their composition they should prove an acceptable addition to the food of young children and also of adult invalids.

Reynolds' Wheatmeal Brown Bread.—J. REYNOLDS & Co., Gloucester.

A sample of this bread was shown at the Exhibition of the British Medical Association at Oxford, and another has been forwarded to us for examination. It is made entirely from wheatmeal, and is free from any mixture of salt or other chemicals. The wheat is of the best quality, and the loaf forwarded was a very good sample of wholemeal bread. It bears the alternative name of Reynolds' Gold Medal Digestive Brown Bread, and can be obtained from any baker in Great Britain.

Meat Juice; Chicken Broth; Brand's A1 Soups.—BRAND & Co., Vauxhall, S.W.

BRAND'S MEAT JUICE. (*Vide* vol. xi., 1893, p. 279.)—Analysis of this meat juice shows it to be one of the best of its kind. It shows well-marked absorption bands of oxy-hæmoglobin when examined spectroscopically, indicating that it has been prepared without heat. Coagulable proteids to the extent of approximately 26 grains in the fluid ounce are present, the proteid being dried at 100° C. before weighing. Extractives and salt in small quantity are also found in solution. It is

worthy of note that such an extract as this acts not only as a stimulant, but also as a nutritious body.

Trophonine, a liquid food; **Zymocide**, a non-poisonous antiseptic; **Peptenzyme Elixir**, an agreeable digestive.—REED & CARNRICK, 80 Gloucester Road, South Kensington, London.

TROPHONINE is a solution of peptonised proteid with a pleasant flavour. On distillation it yields small quantities of alcohol, but there is no evidence of the presence of coagulable proteid. It is stated to contain animal and vegetable ferments, but its digestive power on coagulated albumen seems to be very slight indeed. It is palatable, non-irritating, requires no digestion, and leaves no residue.

The ZYMOCIDE is an elaborate and colourless fluid compound containing the following substances:—Extract golden seal, extract calendula, sulpho-carbonate of zinc, extract witch hazel, boracic acid, thymolate of soda, menthol, oil of wintergreen, oil of spearmint, and oil of eucalyptus.

It is believed by its originators that this fluid represents the latest advancement in chemical science and pharmaceutical skill in this important field of research, and that it is the perfection of all non-poisonous antiseptics. It forms a clear solution in water, is slightly alkaline in reaction, does not coagulate albumen, and undiluted has a germicidal power equal to a 10 per cent. solution of carbolic acid, or a 1 in 2,000 solution of mercuric perchloride.

PEPTENZYME is a combination of the active principles of many glands, including the salivary, peptic, pancreatic, and those of Lieberkühn and Brünner. It is said that the various digestive ferments contained in Peptenzyme do not interfere with, destroy, or injure each other. The Elixir is given in doses of from one to four drachms.

Keystone Beef Wine; Keystone Burgundy.—STEPHEN SMITH AND CO., Bow, London.

The KEYSTONE BEEF AND MALT WINE is the only one in which the Liebig Company's extract, Lemco, is used. It contains a small percentage of extract of malt, and has as its basis a light port. It is a sweet wine, with no unpleasantness of flavour, intended for those who cannot take ordinary food, and who require a nourishing and palatable stimulant.

The BURGUNDY is a natural unmedicated wine, ferruginous and full bodied.

Vino di China Serravallo ferruginoso, Serravallo's Tonic Wine.—J. SERRAVALLO, Pharmacist, Trieste. London: 46 Holborn Viaduct, E.C.

This is an excellent example of a mildly ferruginous wine, which apparently contains no added iron compounds. The preparation also contains the cinchona alkaloids, but not in sufficient amount to render the taste disagreeable. The amount of absolute alcohol found on examination is 12 per cent. by volume.

A liqueur glass after meals is the dose recommended by the proprietor. We have found that patients like it and ask for more.

Granuloids.—BUXTON & Co., Clifton.

BISMUTH COMPOUND.—Each drachm contains a suitable dose of pepsine aseptic and bismuth carbonate in combination with gr. $\frac{1}{20}$ of morphia hydrochloride.

ASPIRIN.—Each drachm contains ten grains of aspirin (soluble). This is a very convenient form for the administration of this very useful anti-rheumatic and analgesic drug. A ten-grain dose may be repeated every two hours until relief is obtained. A few doses will usually give relief, even although the neuralgic pains may be dependent on the presence of organic disease, such as malignant growths.

Bismutose, an albuminate of Bismuth.—KALLE & Co., Biebrich-on-Rhine.

This new bismuth preparation is a pale-yellow amorphous powder, devoid of taste or smell. It is quite insoluble in water, in which, however, it swells up and forms a sort of emulsion, which settles very slowly. It is given in doses of 15 grains or more, either suspended in water alone, or with gum arabic or sugar. Clinically it has given excellent results, and it is claimed for it that the objections which have been alleged to exist against the use of the older bismuth preparations are absent when this new one is employed.

Protylin "Roche"; Eisen-Protylin "Roche"; Bromo-Protylin "Roche"; Iodo-Protylin "Roche."—HUGO LORENZ, 7-8 Idol Lane, London.

These manufactures of Messrs. F. Hoffmann, La Roche & Co., of Basle, Switzerland, are proteid bodies containing a group of phosphorus apposed to natural albumin. Protylin is a white, almost odourless and tasteless powder which is insoluble in water. It contains 2.7 per cent. of phosphorus, which is equal to 6.16 per cent. of phosphoric acid anhydride P_2O_5, and 12.98 per cent. of nitrogen. It resists artificial peptic but not pancreatic digestion; it is soluble in alkalies. Dr. A. Kocher reports "that protylin seems to fulfil the theoretical assumptions that, at all events in cases where it is a question of a supply of phosphorus, protylin is in its effect far superior not

only to the usual inorganic compounds containing phosphorus, but also to the recently-recommended lecithine, and that protylin is perfectly non-toxic."

Further clinical evidence will doubtless be forthcoming with regard to these interesting chemical compounds; they appear to be worthy of continued investigation, and possibly may prove to be of great clinical value.

Sels de Vichy-Etat.—Sels minéraux naturels pour Boisson, 24 Boulevard des Capucines, Paris.

Giesshübler Mineral Water; Insalus Mineral Water; Contrexéville Water. Source du Pavillon.—INGRAM AND ROYLE, London.

Samples of these have been forwarded; they are well known, the least so is the Spanish one called Insalus. They are all alkaline waters, and have their uses in counteracting acidity and the uric acid diathesis.

Colchi. Sal., Colchicine-Methyl-Salicylate.—ANGLO-AMERICAN PHARMACEUTICAL COMPANY, Croydon.

Each of these elegant capsules contains 20 centigrammes, and is equal in effect to 5 grains of sodium salicylate.

In acute inflammatory cases of gout, Laborde's method is especially recommended. This consists in administering one capsule, to begin with, every quarter of an hour until four capsules are taken; then an interval of three hours should be allowed to elapse, and again one capsule taken every quarter of an hour until another four are taken. Repeat this every three hours until sixteen are taken during the day. These doses should not be exceeded except in special cases.

On the second day, one capsule every quarter of an hour until three have been taken, then allow an interval of three hours, and continue on same lines until twelve are taken during the day.

On the third day, if the pain and swelling have not entirely subsided, the dose may be reduced to eight or ten during the day, and continued with still further reduction until the fourth or fifth day. Usually this is not necessary, but small doses of four capsules will in any case be sufficient to prevent relapse. We have found these capsules to be very effective in the treatment of acute gout.

Sphagnol Soap and Ointment.—71a Great Russell Street, London, W.C.

These peat products are said to be of considerable value for detergent and antiseptic purposes. The Sphagnol Medical Soap has a tarry odour and is almost black; it contains 15 per cent. of sphagnol, a product made by distillation of peat.

The colour and odour must prevent these preparations from attaining any popularity for ordinary toilet purposes, but when a tarry antiseptic is required the Sphagnol Soap and Ointment should be useful.

We are told that a touch of the ointment works wonders in wounds, burns and insect bites, and that travellers in the dry and dusty East swear by Sphagnol, which will make its way without meretricious puffing.

Tabloids.—BURROUGHS, WELLCOME & Co., London.

DONOVAN SOLUTION, min. 5.—The conditions in which arsenious iodide is usually prescribed are generally of such a nature as to demand more or less protracted treatment. "Tabloid" Donovan Solution has been introduced to provide a reliable and convenient means of administering this agent, and presents such a degree of compactness that a bottle containing 100 can be comfortably carried in the waistcoat pocket, and hence doses may be taken regularly when the patient is following ordinary pursuits. Each represents min. 5 of Liq. Arsenii et Hydrargyri Iodidi P.B., containing arsenious iodide and mercuric iodide, of each gr. $\frac{1}{22}$. The dose is one to four, dissolved in a wineglassful of water.

FERRIC CHLORIDE, min. 10.—This will be found an extremely convenient means of administering ferric chloride, especially to patients requiring a regular course of treatment. By employing the "Tabloid" preparation the drawbacks associated with carrying fluid mixtures containing ferric chloride are overcome. Each represents the amount of ferric chloride contained in min. 10 of Tincture of Ferric Chloride, B.P., and one dissolved in a large wineglassful of water may be taken as may be necessary.

QUININE AND STRYCHNINE (Quinine Bisulphate, gr. 1; Strychnine Sulphate, gr. $\frac{1}{60}$).—An excellent combination in the many and varied febrile conditions in which quinine is so largely prescribed. In such the antipyretic, antiseptic, and tonic effects of quinine are most marked, whilst the cardiac weakness and depression present in asthenic febrile states—a depression which the use of quinine alone might increase—are counteracted by the stimulating powers of strychnine.

For the loss of appetite and impairment of digestion consequent on fever, or present in conditions of anæmia, neurasthenia, &c., this "Tabloid" product, with its small dose of each constituent, forms an admirable gastric tonic. The dose is one to three, as may be necessary.

Soloids.—BURROUGHS, WELLCOME & Co., London.

EHRLICH TRIPLE STAIN.—The mixture of one soloid dissolved n 25 c.c. of distilled water, with one soloid acid fuchsine in

2 c.c. of distilled water, forms a solution of the Biondi-Ehrlich-Heidenhain Triple Stain, which is ready for use and keeps well.

In specimens properly prepared the erythrocytes should be coloured orange, the granules of the neutrophile polymorphonuclear cells and of the neutrophile myelocytes should have a violet, and the acidophile granules of the polymorphonuclear cells a brick-red colour.

FERRIC CHLORIDE, gr. 10.—The advantages of this preparation are obvious. A solution of ferric chloride carried in the ordinary way is often the cause of annoyance from the liability of the containing bottle to leak or break. Vexatious stains or even considerable damage may thus occur. "Soloid" Ferric Chloride provides a means by which such contingencies may be entirely avoided. Each represents the amount of ferric chloride contained in 40 minims of Solution of Ferric Chloride, B.P., and one, dissolved in a sufficient quantity of water to produce 40 minims, forms a solution equivalent to the official strength. By varying the quantity of water this strength may be increased or diminished according to circumstances.

The Library of the Bristol Medico-Chirurgical Society.

The following donations have been received since the publication of the List in September:

November 30th, 1904.

Association of Medical Librarians (1) ... ... 5 volumes.
Medical Officer of Health of Bristol (2)... ... ... 1 volume.
F. H. Edgeworth, M.B. (3) ... ... 30 volumes.
L. M. Griffiths (4) ... ... 12 ,,
Council of the Royal College of Physicians of London (5) ... ... 1 volume.
R. Shingleton Smith, M.D. (6)... ... ... 4 volumes.
The Surgeon-General, United States Army (7) ... 1 volume.
Council of University College, Bristol (8) ... ... 1 ,,

FIFTY-FOURTH LIST OF BOOKS.

The titles of books mentioned in previous lists are not repeated.

The figures in brackets refer to the figures after the names of the donors, and show by whom the volumes were presented. The books to which no such figures are attached have either been bought from the Library Fund or received through the *Journal*.

Atlas of Illustrations of Clinical Medicine, Surgery, and Pathology, An Fasc. X.—XII. 1904

Bartholow, R. ... *Medical Electricity* ... ... (3) 3rd Ed. 1897

Beale, L. S. ... *On Slight Ailments* ... ... (3) 1880

Black, C. B. ... *Guide to South of France, &c.* ... ... (3) 3rd Ed. [N.D.]

Bryson, A. ... ... *Epidemic Fevers of Sierra Leone* ... ... (3) 1849

Carter, R. B. ... *Eyesight: Good and Bad* ... ... (3) 1880

Catalogue (Index-) of the Library of the Surgeon-General's Office, United States Army ... ...2nd Ser., Vol. IX. (7) 1904

Catalogue of Accessions to the Library of the Royal College of Physicians during the Year ending July, 1904 ... ... (5) 1904

Coles, A. C. ... *Clinical Diagnostic Bacteriology* 1904

Cooley, A. J. ... *Cyclopædia of Practical Receipts.* 2 vols. (3) 6th Ed. 1880

Cowen, R. J. .. *X-rays: their Employment in Cancer and other Diseases* 1904

Dobell, H. ... ... *On Winter Cough* ... ... (3) 3rd Ed. 1875

,, ... *The Mont Dore Cure* ... ... (3) 1881

Edwards, G. D.... *Notes on Assouan* 1904

Fothergill, J. M. *Digitalis* .. .. (3) 1871

Gairdner, W. ... *Gout* ... ... (3) 4th Ed. 1860

Gibson, G. A. ... *Nervous Affections of the Heart* 1904

Griffith and A. Henfrey, J. W. *Micrographic Dictionary* ... (3) 3rd Ed. 1875

Haig, A. ... ... *Uric Acid* ... ... (3) 2nd Ed. 1874

Harrison, R. ... *The Ambulance in Civil Life* ... ... [6th Ed.] 1904

Hassall, A. H. ... *Inhalation Treatment* ... . (3) 1885

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Hewer, Mrs. J. L. *Our Baby* ... ... 9th Ed. 1904

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The Bristol Medical Library keeps an album for newspaper cuttings and other local items relating to medicine, and the Honorary Librarian will always be glad to receive any additions to it.

MEETINGS OF SOCIETIES.

Bristol Medico-Chirurgical Society.

Annual Meeting, October 12th, 1904.

After a vote of thanks to the retiring President (Mr. Paul Bush) had been unanimously passed, Dr. REGINALD EAGER took the chair, and gave an introductory address (see p. 289). Subsequently a cordial vote of thanks was given to Dr. Eager for his able address.

The Honorary Secretary, Mr. H. F. MOLE, read his Annual Report. The balance in hand was £158 4s. 8d. on the ordinary account and £10 os. 1d. on the *Journal* account.

The Society had to regret the loss of two members through death, viz. Drs. E. Crossman and T. Hill; the former was one of the oldest members of the Society. The report was adopted, and thanks given to the Secretary for his services.

The Editorial Secretary, Mr. JAMES TAYLOR, read his Annual Report, which was followed by that of Mr. C. K. RUDGE, the Honorary Librarian of the Medical Library. The latter report showed that the Bristol Medical Library now contained 20,764 volumes, and was in receipt of 227 current periodicals. These reports were adopted.

The following officers were chosen for the ensuing year:—President-elect, Mr. Dacre; Members of Committee, Dr. J.

Michell Clarke, Mr. Dacre, Dr. B. M. H. Rogers, Mr. James Taylor, Dr. Waldo, Dr. Watson Williams, and Mr. C. K. Rudge; and Members of the Library Committee, Mr. Rudge, Mr. Munro Smith, and Mr. T. Carwardine.

Dr. Shingleton Smith and Mr. Paul Bush were elected to represent the Society at the next International Medical Congress to be held in Lisbon in 1906.

November 9th, 1904.

Mr. MUNRO SMITH in the chair.

Dr. OGILVY showed a patient with **peculiar changes in the iris.** The patient, a man 22 years of age, had been struck in the left eye with a chip from a hammer when driving in a nail. The accident had taken place three years previously. The patient stated that for a fortnight after the accident vision was obscured; then it cleared up, and he went on with his work till six months ago without much trouble. Then he noticed his sight was failing, but had not sought advice till a month ago. The state of affairs when seen showed a pupil tied down all round, and with considerable opacity in the centre, but no active iritis. Under atropin the synechiæ broke down fairly easily, and it was then discovered that he had several nodules on the anterior capsule of the lens, bright orange in colour. These were at first taken to be spots of lymph left by the synechiæ; their colour, however, was brighter than those usually found in this condition. Their appearance resembled a condition sometimes found in cases where chips of steel or iron have remained embedded in the lens for a long time without causing any change, but which have sooner or later become oxidised, set up a definite opacity in this body, and eventually, if the lens has not been removed, have formed rusty fragments, leading to iridocyclitis and loss of the eye, with great danger to its fellow from sympathetic ophthalmia. In this eye, however, there was no cicatrix visible, nor any indication of the penetration of a fragment, and one was driven to the conclusion that these six or seven spots were merely tags of lymph, and their light orange-red colour was an abnormality.—Dr. JAMES TAYLOR stated that if the spots were really "iron rust" the skiagraphic plate would undoubtedly show them up.—Mr. H. F. MOLE asked if, owing to the extremely regular arrangement of the pigment, it was not more likely to be a deposit from the iris rather than rust from a foreign body.

Mr. A. W. PRICHARD read notes on the following cases:—First, a **case of mesenteric cyst.** The patient and specimen were shown. (For the full account of this case see page 332.) Secondly, a **case of intestinal obstruction from gallstone.** The large gallstone which had produced the obstruction was exhibited. It had been removed from the lower part of the

jejunum; but the patient, aged 65, did not recover. The autopsy showed that the gall-bladder was adherent to the duodenum by adhesions, which were easily broken down, and that there was a large aperture of communication between the two viscera, through which the stone had passed. Both kidneys showed pyelonephritis. Thirdly, **a peculiar ovarian tumour** which had been removed by operation. It consisted of a large cyst connected with a solid mass, from which projected some papillomatous growths, and a large number of cysts of different sizes, and in the fresh specimen. of various colours. The growth was adherent to the bladder, and the pedicle was the left broad ligament. The patient did well.—Mr. ROGER WILLIAMS, discussing the first case, considered the specimen to be a remarkably good example of that rare form of omental cyst which, on account of its structural resemblance to intestine, had been well named "**enteroid.**" Such cysts were undoubtedly due to sequestration of "rests" of the evolving intestine, separated during the course of development. In this connection it was of interest to recall the fact that cysts of this kind were specially apt to arise from the part of the gut in the vicinity of the bile-papilla, and also from that in the vicinity of the vitelline duct: both of these localities were the sites of great developmental complication. In this case the presence of duodenal-like glandular structures and even Brunner's glands in the wall of the cyst, clearly pointed to its locality of origin—the vicinity of the bile-papilla. This was a region of great developmental complication; here it was that the fore and mid gut joined, and not as was usually stated at the pylorus. There was no special developmental complication at the pylorus. Developmentally regarded, the first part of the duodenum to within a short distance of the bile-papilla, really formed part of the stomach. It was in the vicinity of the bile-papilla that atresia and contractions were so often met with, and it was with malformations of this kind that the origin of these "enteroid" cysts were associated. The many ducts arising as outgrowths from this part of the bowel—abnormally evolving—probably had much to do with the causation of these conditions. He inquired whether these cysts communicated with the bowel by a pedicle or otherwise, and as to whether there were any signs of duodenal narrowing or deformity. In cases of this kind the cyst contents were generally of the nature of succus entericus. Referring to the **ovarian cystoma**, the speaker said that it was evidently a specimen of a rare and unusual kind of ovarian tumour of which it would be interesting to have a thorough examination made as to its precise structure. The grape-like, racemose appearance of the surface cysts was very unusual, and seemed to indicate that we had before us a specimen of "Rokitansky's tumour," a disease which was usually bilateral.—Mr. C. A. MORTON alluded to three cases of mesenteric or omental cysts he had met with and showed the

specimens. In one a mesenteric cyst had been found in an inguinal hernia, and had made the hernia irreducible. A second he had considered to be an ovarian cyst before operation. Its contents had resembled liquid clay-coloured fæces. The third was situated in the transverse meso-colon in the right side, and had produced jaundice by pressure on the common bile duct.—Mr. PAUL BUSH commented upon the very rapid heart's action, still persisting, of the patient from whom Mr. Prichard had removed the mesenteric cyst. The boy was in other respects well, and there was no other obvious cardiac defect.—Mr. MUNRO SMITH said that the microscopic structure of the cyst was that of the small intestine; two distinct muscular coats with a muscularis mucosæ and numerous large glands lined with columnar and pyramidal epithelium, like the glands in the pyloric end of the stomach and duodenum. Dr. MARKHAM SKERRITT commented upon the sub-acute course of cases of gallstone intestinal obstruction.—Mr. LACE alluded to two cases of gallstone obstruction of the intestine. In one of these there had been hæmatemesis, and the stone had been felt *per rectum*.

Dr. THEODORE FISHER and Dr. FORTESCUE-BRICKDALE showed a specimen of **congenital hypertrophic stenosis** of the pylorus from a child aged 11 weeks. The stomach was not much dilated (capacity about 4 ounces), but the walls were thickened considerably. The œsophagus was dilated and hypertrophied. The pylorus showed the usual appearance of a hard, thick ring of muscular tissue, about three-quarters of an inch long, within which the mucous membrane was thrown into longitudinal folds. *Post-mortem*, water could not be forced through the pylorus. The intestines contained a little fæcal matter. The other organs were healthy. The child weighed 6 lb. 6 oz., and had vomited since it was a fortnight old. The vomiting was nearly constant in small amounts after every feed, but occasionally a much larger quantity was returned. The obstruction cannot have been complete during life as there was no constipation. The pyloric tumour could not be felt, but peristalsis was very apparent in the epigastric region. This, with the history and the emaciation, determined the diagnosis. The child died suddenly on the second night after admission to hospital.

Dr. E. W. HEY GROVES read a paper on **the advantages of enucleation of the tonsils over their removal by the guillotine.** [This paper will shortly be published.] Dr. Watson Williams said that he could not assent to the statement that the tonsils were functionally useless structures. He believed that the ring of lymphoid tissue consisting of the faucial, lingual, and naso-pharyngeal tonsils, so well developed in the earlier years of life, were probably of greater functional ability than often was supposed, and that while these lymphoid tissue aggregations might be of some as yet unknown useful purpose in life, there was strong

evidence that when healthy they were protective. Invading micro-organisms were arrested there, and infective processes leading to tonsillitis and so forth were in many instances thus limited in their action instead of resulting in systemic invasion. It was at one time presumed that as we were ignorant of any important function appertaining to such—that the spleen was of no use; and even comparatively recently the thyroid gland was presumed to be of no service to the organism. Hence sweeping generalisation and assertions that the tonsils were useless structures were to be accepted with great reserve. Another point that he felt was of great importance was the influence of chronic enlargement of the tonsils in the so-called quiescent phases, for though it was readily appreciated that acute tonsillitis was painful and a grave source of ill-health at times, he was of opinion that during the intervals between these acute exacerbations these tonsils maintained a condition of persistent though perhaps slight sapræmia, with consequent anæmia and inhibited tissue metabolism, the patient being listless and lacking in vitality. The remarkable change for the better resulting from removal of the tonsils when they were diseased were a fairly convincing proof of this. As regards the value of enucleation as compared with tonsillotomy, he felt that if the tonsils were useful structures, Dr. Groves's main contention in favour of the more radical procedure fell to the ground. He also maintained that if the Matthieu tonsil guillotine was used the results were more consistently satisfactory than with the use of the Mackenzie tonsillotome and its various modifications. —Mr. H. F. MOLE said that he had to operate on a large number of cases of enlarged tonsils. He always used the guillotine, and the results were as a rule very satisfactory. He thought the operation of enucleation should be reserved for two classes of cases: first, those in which, after removal of the tonsils by the guillotine, the patients were liable to recurring attacks of tonsillitis; secondly, those patients with flat or buried tonsils which did not project beyond the pillars of the fauces and could not be engaged in the ring of a guillotine, and who were also liable to recurring attacks of tonsillitis. Both these classes of cases were usually found in adults, the second entirely so, and these latter could almost as satisfactorily be dealt with by the galvano-cautery or punch forceps in two or three sittings under cocaine. The great risk of the operation on tonsils lay in the anæsthetic, and that operation which, giving reasonably satisfactory results, could be performed under the shortest and least deep anæsthesia was obviously the best. The operation of enucleation required a longer and deeper anæsthesia than the guillotine operation, and its universal adoption, in addition to being unnecessary, would very greatly increase the mortality of the operation. He thought it should be limited to the cases mentioned. He thought it unwise to state that the tonsil was a useless structure. It was possible that it might perform a

very important purpose in arresting the descent of micro-organisms to the respiratory or alimentary tract.

J. LACY FIRTH and
HAROLD F. MOLE (*Hon. Sec.*).

Local Medical Notes.

University College, Bristol.—The following appointments have recently been made: F. H. Edgeworth, M.B., B.C., B.A. Cantab., D.Sc. Lond., Joint-Professor of Medicine, *vice* J. E. Shaw, M.B., C.M., resigned. E. W. Hey Groves, M.D., B.S., B.Sc. (Lond.), and W. S. V. Stock, M.D., B.S. Lond., Demonstrators of Anatomy, *vice* J. O. Symes, M.D. Lond., and T. Carwardine, M.B. Lond., resigned. Students of the College have been successful in the following examinations: University of London.—*M.D.:* Carey F. Coombs, H. S. Jenkins. *B.S.* (*Honours*): E. W. Hey Groves, M.D., B.Sc. *M.B., B.S., Group I.:* A. Coleridge. Conjoint Board of the Royal Colleges of Physicians and Surgeons of England.—*First Examination: Biology*—R. C. Clarke, S. H. Kingston. *Practical Pharmacy*—H. W. Goodden, A. J. O. Wigmore. *Second Examination: Anatomy and Physiology*—P. S. Tomlinson. *Final Examination: Surgery*—T. S. Davies,* L. N. Morris, S. C. Hayman.* *Midwifery*—H. O. Gough, A. N. Thomas, M. R. O. Wilson. L.D.S. Eng.—*Final Examination, Part I.*—W. J. Jones; *Part II.*—A. J. Mundy.*

Winsley Sanatorium.—Dr. Salmond has been appointed Resident Medical Officer, and Miss Jessie Creighton as Matron, and have entered on their duties.

Openairia at the Zoological Gardens, Clifton.—The report of the Secretary to the Committee of the fête has just been received, showing a balance in favour of the Winsley Sanatorium for Consumptives amounting to £1,529 17s. 2d.

Public Health, Bristol.—For these notes we are much indebted to the Medical Officer of Health, Dr. D. S. Davies.

The general death-rate for the third quarter of 1904, 13.3, compares favourably with the average rate for the seventy-six largest English towns, 17.5, and is the lowest rate recorded in those towns having a population over 200,000.

Extension of City Boundaries.—On October 1st the city was extended by the addition of Horfield, Westbury-on-Trym, Shirehampton, and part of Henbury. The effect of these extensions

* Denotes qualification.

is to increase the area of the city, which in 1897 was only 4,661 acres, to 17,000 acres, and the population to 354,443. The city is now the sixth in size by population, and the fourth in acreage, of the provincial cities.

Hospitals.—The deficiency in hospital accommodation which has long characterised Bristol is being surely if slowly made good, but the city is still alone amongst the largest cities in not even approaching the required minimum of one bed per 1,000 inhabitants for isolation purposes. The adequate number of beds for the city would be 350. At Ham Green the new block will provide isolation room (at 2,000 cubic feet per bed) for 58 beds, and these added to the 76 previously built gives 134 beds at full cubic space. In times of pressure 170 beds can be made up in this hospital by somewhat curtailing the cubic space allowance. With the aid of the Clift House (temporary) accommodation, and of that at Nover's Hill (originally provided for small-pox), the available beds in the city number about 240, with some crowding.

Small-pox has continued to make its appearance from time to time, chiefly attracted by the dock works at Avonmouth. The type of disease introduced into Bristol is still of an extremely modified kind, and in many cases extraordinarily mild, increasing the chances of "missed" cases. By carefully following up clues, and by persistent search for any missed case, success in prevention has been uniform, as for the past ten years.

The recent conference on the spread of disease by vagrants, held on 10th November at the County Hall, Spring Gardens, London, was attended by a large number of delegates from the county councils, county and Metropolitan boroughs, and from the Metropolitan Asylums Board. Eighteen resolutions were discussed and adopted, comprising general measures for the prevention of the spread of infectious disease by vagrants, common lodging houses and casual wards, labour bureaux, labour colonies, children of vagrants; and a committee was appointed to give practical effect to the resolutions by such constitutional methods as may best enlist the sympathy and co-operation of the Government. The Medical Officer of Health for Bristol was appointed one of the Members of Committee of the County Borough Councils.

The conference disclosed the fact that, in the majority of towns, the vagrant is much dreaded as an efficient agent in the spread of small-pox, and common lodging houses seem to act as frequent centres of infection. Curiously enough, in Bristol, though tramps not infrequently introduce small-pox, they have not for ten years past proved efficient agents for promoting an epidemic, nor have the common lodging houses responded to the introductions.

Our experience has been that private workers visiting friends have started the only two substantial outbreaks of recent years, but in no case have more than fifteen cases been permitted to

exist at any one time for the past ten years. Direct personal care and minute attention to "missed" cases and to detail appear in general to be sufficient to meet, with the aid of revaccination, the insistent but straightforward attacks of small-pox.

Diphtheria is a disease of quite another kind, but it is satisfactory to note that the fatality of the disease, which has given so much trouble since 1900, is continuously declining, as shown by these figures:—

DIPHTHERIA MORTALITY IN BRISTOL.

Deaths per 100,000 persons living.

1899	...	...	...	...	10
1900	...	...	...	...	31
1901	...	...	...	...	37
1902	...	...	...	...	55
1903	...	...	...	...	35
1904—1st quarter			...	...	37
2nd	„		...	...	32
3rd	„		...	...	17

Enteric Fever.—This disease is by no means prevalent in Bristol, though the city shared in the usual increase during the third quarter of the year. This year seventy-eight cases were notified in that period, a number in excess of the phenomenally low (and wet) year 1903, when forty-six only were returned, but well within the average of the past five years.

Diarrhœa.—The third quarter of the year is characterised, especially in a hot season, by considerable infantile diarrhœa mortality. Although Bristol shares the autumnal rise in mortality with the other towns, the diarrhœa rate (1.61) is the lowest of all towns having a population over 200,000. This is only notable because considerable excitement was caused in August by an unfounded newspaper article, copied widely into the London newspapers, stating that an epidemic of enteritis had been caused among the children of the poorer districts in Bristol by the use of an injurious preservative in milk: there was no foundation of any sort for this report, which seems to have arisen from inexperience and misconception.

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